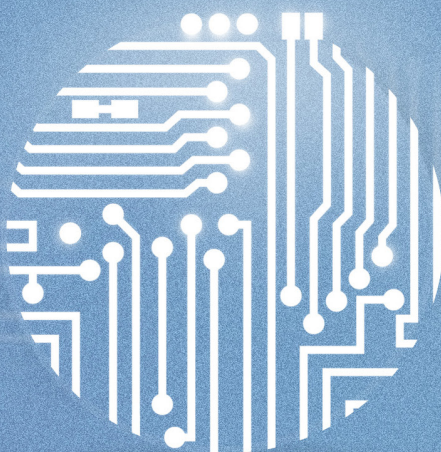


THE
“GET IT DONE
IN AN HOUR”
GUIDE TO
CRYPTO
CURRENCIES



Step-by-step guides to understanding,
buying and storing popular cryptocurrencies

NICK KING

First published in September 2018.

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Consider your own circumstances and obtain your own advice. You should also verify the nature of any product or service (including its legal status and relevant regulatory requirements) and consult the relevant regulators’ websites before making any decision.

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1

So what's crypto?

The concepts and technologies behind crypto are complex: this explanation isn't.

You've heard of Bitcoin.

It's that computery currency that people began talking about as its price seemed to explode overnight, turning a bunch of geeks into instant millionaires.

Depending on whom you ask, Bitcoin is either the beginning of a technological revolution, a Ponzi scheme, the key to financial freedom from banks or history's greatest scam.

Amid the technobabble, the sensationalist headlines and the idealism of crypto fanatics, it might seem like Bitcoin defies reasonable description.

It doesn't.

Bitcoin, along with most other cryptocurrencies, can be summarized in just one simple sentence:

A cryptocurrency is a digital asset stored on a decentralized and cryptographically secure blockchain.

Okay, I'll admit it's not *that* simple, and it's stuffed with buzzwords you've never bothered to google.

So let's break it down.

An **asset** is an item owned by a person. Like a spoon.

A cryptocurrency coin is an asset. But unlike a spoon, it isn't physical—there are no real-world coins to jingle in your pocket. A cryptocurrency coin is formed of information stored on a computer—making it **digital**.

This digital information, which details the owner of every coin and the transactions they have made, is stored in a special kind of **database** called a **blockchain**.

Database | Structured data held on a computer.

It's similar to how your bank manages your bank account: when you deposit money, your bank updates a database to show a transfer to your account and updates your balance to reflect it.

A blockchain works the same way: when you buy a cryptocurrency coin, your account on the blockchain (commonly referred to as a wallet) will show a transfer into it, and will update your balance accordingly.

But there's a key difference between your bank's database and a blockchain. Your bank might go off-line because a freak storm cuts power to its data center, or a hacker shuts down its systems. A blockchain is stored on thousands of computers across the world, all connected by the internet, making it extremely resistant to failure. This is called **decentralization**.

But having a database spread across the world sounds pretty insecure, right? What if someone decides to hack it and give themselves a zillion coins?

That's where **cryptography** comes into play.

Cryptography means disguising and revealing (encrypting and decrypting) information using complex mathematics.

Mind-boggling, I know, but all we need to understand is that cryptography makes it virtually impossible for the information entered on to a blockchain to be falsified. That decentralized database is hellishly secure.

So far, cryptocurrencies sound neat but why bother with them? Cash and bank accounts work fine, right?

To offer some perspective as to why cryptocurrencies were even conceived of and the problems they aim to solve, let's take a dip into recent history.

In the 2000's, bankers were so hungry for commission that they issued mortgages to people who couldn't really afford to pay them back, and then resold packages of those mortgages as securities to investors and other banks.

This house of cards stood fine while the price of property was going up, but by 2008 the property bubble had popped and those mortgages and securities went bad, triggering a worldwide **recession** that forced millions of people into unemployment.

Banks started going bankrupt and the world's entire financial system was on the verge of collapse.

Recession | A period of economic decline.

Central bank | A national bank that issues a country's currency.

Unfortunately, instead of addressing and dealing with the fraud and corruption in the world's financial institutions that brought about this disaster, **central banks** instead chose to expand their balance sheets, otherwise known as 'money printing', to bail the banks out of their debt problems.

There wasn't any actual physical money printed—it was simply numbers added to and shuffled between databases. The banks

were loaned this new money and used it to ride out the crisis, while ordinary people suffered from the economic fallout.

With this inequality in mind, a man (or group of people, since it's still a mystery) named Satoshi Nakamoto conceived of an experiment—to create a currency free from central-bank meddling. A currency free from self-enriching manipulation.

The first and most famous of cryptocurrencies, Bitcoin, was born.

Bitcoin needs no central authority or bank to operate, instead relying on **peer-to-peer** technology to manage transactions and issue coins. What this means in action is that no one has control over your coins but yourself. There's no need to trust a third party (e.g. a bank that can go bust) with your money.

Nobody owns or controls Bitcoin, and the **open-source code** that powers it is available for anyone to view and audit.

But don't start to think Bitcoin is a perfect or finished product. It has technical challenges to overcome so that it can scale for its growing user base and have speedy transactions. To that end, the Bitcoin code is being actively worked on by hundreds of developers, dedicated to improving its features, security and speed.

Peer-to-peer | A network of computers that allow shared access to files without the need for a central server.

Open-source | Software for which the source code is made freely available to everyone.

Code | The instructions that power a computer program.

Altcoin | Alternative cryptocurrencies launched after the success of Bitcoin.

The growing popularity of Bitcoin has given rise to the creation of more cryptocurrencies, referred to as '**altcoins**'.

Most altcoins embrace the following principles:

■ Security through blockchain and decentralization

Each and every transaction of a cryptocurrency gets stored

on thousands of servers around the world, creating a robust, decentralized system.

■ Openness and transparency

Open-source code provides trust in the system. People can be corrupted, but code obeys cold, hard logic.

■ Immutability

Security and transparency combine to make it effectively impossible for someone to hack the transaction history of a cryptocurrency.

■ Accessibility

All that's required to send and receive cryptocurrencies, anywhere in the world, is a device capable of accessing the internet.

■ Speed

Bank transfers can take days. Cryptocurrency transfers can be instantaneous or take minutes, depending on the currency used.

■ Cost

If you've ever sent money to someone in another country, you know that you have to pay a fee to convert it from one currency to another.

Sending cryptocurrencies to another country requires no conversion fee. It's all done across the internet, and the internet doesn't care about countries and borders.

2

A new type of investment.

What cryptocurrencies are,
and what they're not.

Cryptocurrencies are unlike any other asset class that's come before, and their unique characteristics have led to confusion and misconceptions about just what these digital assets represent.

■ Cryptocurrencies *are not* stocks or shares

Buying a stock or share is like buying a tiny part of a company and usually entitles you to a **dividend** and voting rights over a company's plans.

Buying a cryptocurrency doesn't entitle you to either of these things.

Dividend | A sum of money paid regularly by a company to its shareholders.

For instance, owning a Bitcoin won't earn you any future Bitcoin dividends, and it doesn't give you any say over how the development of the coin proceeds.

■ Cryptocurrencies *are* a speculative investment

The popularity of cryptocurrencies may be exploding, but they are

not yet ready for mainstream adoption.

Solutions to technical challenges, such as how to scale the technology to keep it stable as its use grows, are still being researched and developed.

The technology holds great promise, but it's still a risky, speculative investment.

■ **Cryptocurrency values *are* unpredictable**

Imagine a gold coin. It just sits there, a small, shiny circle of inert metal. You can't eat it, you can't drink it, you can't do much at all with it. So why would anyone assign value to it? Why is it worth anything?

Because of our *collective belief* that it is worth something.

So if we all believe a gold coin is worth something, how much is it worth?

As much as someone is willing to pay for it.

It's the same with cryptocurrency. A Bitcoin is worth something only because of the market's collective belief that it has value. And it's worth exactly what someone at that moment is willing to pay for it. The price goes up when more people want to buy, and down when more people want to sell.

This means the price of cryptocurrencies can be volatile, changing from moment to moment for seemingly no reason. In the course of the same day, it can go to the moon and to the floor.

It's vital to be aware and respectful of this unpredictability.

■ **Cryptocurrencies *are not* anonymous**

One of the misconceptions that dog Bitcoin is the belief that it

allows for anonymous transactions.

This just isn't true.

Sure, you can set up an anonymous Bitcoin wallet and receive a coin from a stranger, and to an outside observer it would appear to be untraceable.

But that transaction will be recorded on the blockchain—and anyone can see it. Specialist companies can follow the trail of Bitcoin transactions using analysis software and other online, public clues, which can enable them to link transactions to real identities.

There *are* privacy cryptocurrencies, such as Monera and Zcash, that use special technology to anonymize a user's transactions. But they're still vulnerable to someone matching transaction time-stamps to real-world events, such as buying something online or selling coins for cash, which in turn can reveal a user's identity.

■ Cryptocurrencies *are not* regulated (sort of)

Loose and sometimes non-existent regulation of cryptocurrency markets has led some people to refer to them as the 'Wild West' of investments.

Different countries have different laws and different attitudes towards crypto. Japan and South Korea have embraced cryptocurrency trading by drafting laws to regulate the market. Countries such as China and India have swung in the opposite direction, all but banning their citizens from (legally) investing in cryptocurrencies.

Only one thing's for sure: more regulation is coming.

The sheer rise in value of the crypto markets will force governments to create new laws to regulate it—in part to protect investors, in part to make sure they get their slice of the pie.

3

Good habits of a smart investor.

Invest smart, invest safe.

This might be your first time investing in anything that isn't a savings account, or you might already be a savvy buyer of bonds and stocks.

Either way, now is a good time for some basic pointers on how to be sure your crypto investing is done in a smart and secure way.

■ Don't be tempted to overinvest

The smart investor's golden rule is:

Never invest what you can't afford to lose.

As tempting as it is to dream of the future riches a large investment in your favorite coin could net you, also consider the worst-case scenario: the price of your coin crashes to nothing.

How will your life be affected? Will you laugh and write it off as a lesson learned? Will you find it mentally difficult to cope with losing that sum of money? Will you struggle to pay your rent?

Write it on a piece of paper and stick it to your fridge. Chant it to yourself in the bathroom mirror. Whatever it takes, just make sure to follow the golden rule:

Never invest what you can't afford to lose.

■ Don't borrow to invest

It's a *terrible* idea to borrow money to invest in anything, even if you're convinced the price is about to shoot up.

Because what's worse than making a bad investment?

Making a bad investment *and* being in debt because of it.

■ Do your own research

The cryptocurrency markets are rampant with people desperate to convince you to buy a certain coin—because if they get enough people to buy, the price of the coin will rise, and so will the value of their own investment.

They'll try to manipulate you with fake news stories, fabricated announcements, and dreamed up 'analysis' to show that the coin is about to '**moon**'. They'll use Facebook, Instagram, Twitter, Reddit, message boards and blogs to spread their '**shilling**'. As a result, when you read or hear anything related to cryptocurrency investments, you need to question it.

Moon | To experience an explosive increase in value.

Shilling | Person engaged in covert advertising. Spreading buzz with the pretense of sincerity.

Is this statement true? Is it being reported by numerous sources? Why would this person be telling me this? How could he profit?

This is where *your own* research comes in. Search for news. Root it out. Test it for truth. Ask questions. Listen, and form your own opinions. And only then should you feel comfortable to invest.

Because no one is going to be looking out for you and your money except yourself.

■ Do diversify

Just as in traditional investments, it's not a good idea to go 'all-in' on one single thing.

Over the years coins have soared in price, and coins have tanked. If you're unlucky enough to invest in a project that fails and you were all-in the impact on your investment could be devastating.

Instead, consider keeping a portfolio of at least several coins so that the failure of any one won't mean losing all of your investment.

■ Don't invest based on emotions

You might fall in love with the idea of a coin; maybe the team is attempting to solve a problem that you're passionate about, maybe its marketing makes you laugh, or maybe you're just really keen on the name.

Then again, you might be experiencing '**FOMO**' because the price of a coin just started shooting up—and you're afraid to miss the opportunity for profit.

These kinds of emotional investments are a *terrible* idea.

That price explosion might have been caused by a fake rumor flying around Twitter, or a '**pump and dump**' group trying to lure you in. Without taking a step back and doing your research, you just won't know, not until it's too late.

So try to practice emotional detachment when you're deciding on which coins to invest in. Rely on research (covered in chapter 9) and cold, hard logic.

FOMO | Fear of missing out.

Pump and dump | Encouraging others to buy a coin in order to inflate the price artificially, and then selling one's own coins while the price is high, causing the price to drop.

■ Don't neglect your computer's security

We all know that computers and phones are vulnerable machines. Email accounts get hacked, credit card numbers are stolen, celebrities find their embarrassing photos leaked onto the internet. Half the time, hackers do such things for fun—so imagine the added incentive when they can do it for profit.

Cryptocurrencies are a hackers dream. If hackers can penetrate an unsuspecting crypto investor's computer, they can steal their coins and sell them for cash quickly and easily.

This is why you have to be deadly serious about keeping your computer and phone secure.

■ *Use a modern and secure web browser*

My recommendation is Google Chrome, which is constantly and automatically updated against the latest known security threats. You can download Chrome here:

<https://www.google.com/chrome>

■ *Have up-to-date virus and malware protection*

Protect your computer with software that scans for malware and viruses. My recommendation is Bitdefender, which is regarded as a market leader in home computer security software. Here's a quick link to the official download site:

<https://getcrypto.info/bitdefender>

■ *Be sure you're on a genuine website*

Did you just go to the above URL? If you did, you'll see that it quickly and easily forwarded you to the official Bitdefender website.

Which is fine, because you can trust me. I won't send you to a dodgy website that's going to steal your passwords, right?

Wrong! When it comes to your computer security, don't take anyone's word for granted.

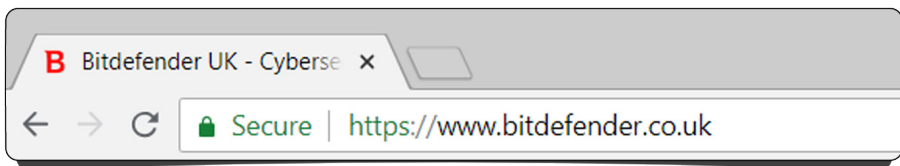
There are scammers who clone a real website, buy a similar domain name and then fool users into using their login details on the fake site. The scammers then use those details to steal the user's identities or funds on the real site.

So if you haven't already, download and install Chrome, then use it to go to:

<https://getcrypto.info/bitdefender>

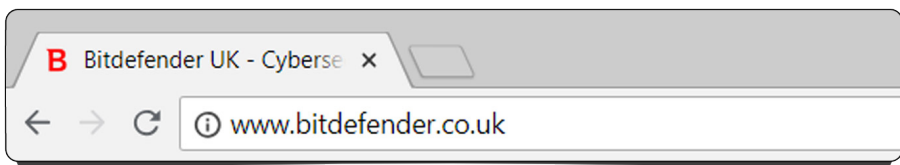
Pay attention to what's happening in your browser.

You'll see that you're forwarded to the official Bitdefender website. But how can you be sure? Let's take a look at how you can tell.



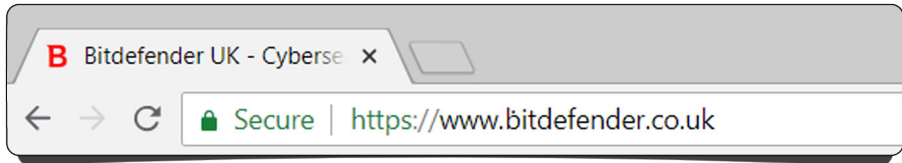
As you can see in the image above, Chrome is letting you know the site's **security certificate** corresponds to its domain name, by displaying a green padlock and the word 'Secure'.

Security certificate | A validation tool that secures and encrypts data being exchanged by a server and your web browser.



If it didn't, you'd see the above. A website without a security

certificate shouldn't be trusted with sensitive information.

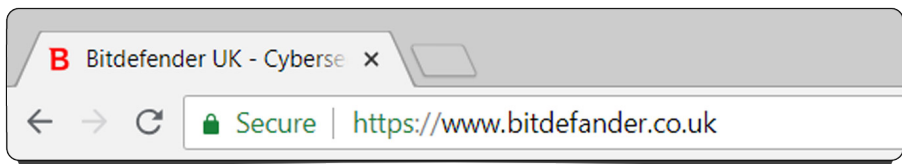


So how about this site? It has the padlock, so it looks safe.

Wrong!

Look at the domain name again. What looks perfectly legit at first glance becomes obvious with a second—there's a small dot above the letter *b*.

By abusing the quirks of the Latin alphabet, scammers can register domain names that look almost identical to the real thing. They then buy a security certificate to match their fake name and promote their site in the hopes that unsuspecting users will use their login data for the genuine site.



And here's another example, featuring an easy-to-miss spelling change.

These simple methods of fooling people have made scammers a lot of money—so stay aware of where your web browser is pointing, and don't become the next victim.

■ *Be aware of scams*

If you get an email from anyone offering to share his Bitcoin fortune with you, delete it. It's a scam.

If you get a phone call from the tax office, and they threaten you with legal action unless you immediately send them Bitcoin—put the phone down. It’s a scam.

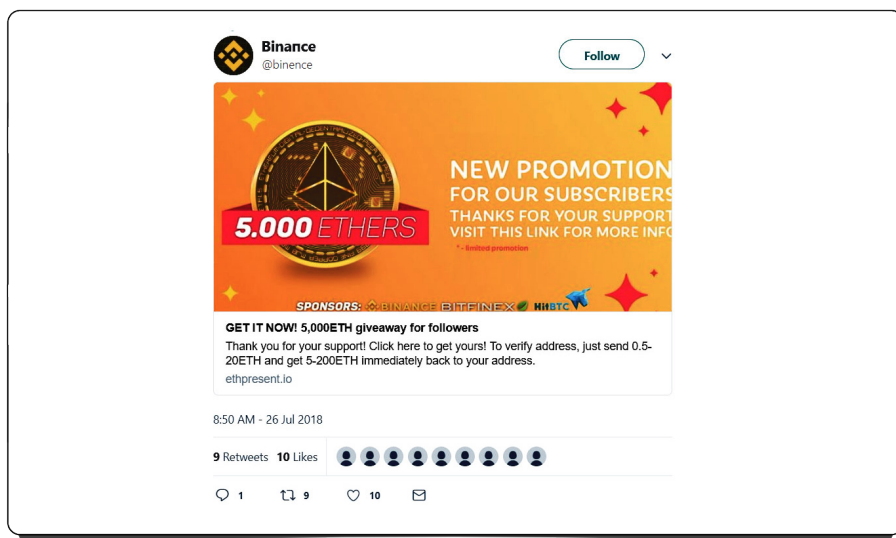
Along with faking websites, scammers will continue dreaming up new ways to try to steal your crypto, by tricking you, promoting fake contests, creating Ponzi and pyramid schemes... the list is endless.

Remember—if something looks too good to be true, it usually is.

For instance, a scam has spread across social media networks, especially on Twitter, that involves promoting ‘contests’ that offer to double, triple, even quadruple a user’s crypto—they just have to send their coins to an address and get sent the free coins back.

Sounds great? Well yeah, because it’s a total scam. One that preys on the average person’s naivety and greed.

Here’s an example:



Note the display name—Binance—that this Tweet was posted under.

Binance *is* a real cryptocurrency exchange. However, its real Twitter handle is @binance, *not* @binence. That's a solid indication that this is a scam, but easy to miss if you don't know what to look for.

Scammers also use armies of fake Twitter accounts to like and re-tweet their scams to make them seem authentic and popular.

■ *Don't download or install software with an uncertain background*

You're less at risk if you've installed a virus and malware protector such as Bitdefender as it will block a lot of threats, but you still need to stay smart when installing programs downloaded from the internet.

You might be tempted to install a pirated game or program downloaded from a Torrent website, but hackers routinely use these to corrupt computers with malware, allowing them to hijack people's cryptocurrency transactions or steal from their wallet.

And if you get an email from a stranger urging you to open an attachment, delete it. It's probably malware.

4

Buying your first cryptocurrency

Step-by-step guides to buying
Bitcoin and Ethereum.

Note: There are potential tax implications when it comes to *selling* the cryptocurrencies bought in this chapter. See chapter 13 for more details.

And now we get to the part of the book you picked it up for.

By now you've gained an understanding of the theories and technology behind cryptocurrencies, of how a smart investor thinks and how to keep your crypto safe, so you're ready to take ownership of some real-life coins.

Exciting!

It's a thrilling experience to use an emerging technology that the average person barely comprehends—but it's also confusing.

Early adopters learned how to buy and use cryptocurrencies by trial and error—and that's a messy experience. Thankfully now

there's websites and books (like this one!) dedicated to easing beginners through their first crypto experiences.



Typically, its advised that the first cryptocurrency investment of a new buyer is either Bitcoin or Ethereum. Why?

Because:

- Bitcoin and Ethereum are by far the most popular and well-known cryptocurrencies, with huge communities that hold expert knowledge and are eager to share it with beginners.
- Bitcoin and Ethereum are currently the easiest to buy and store.
- Bitcoin and Ethereum act as the crypto equivalent of 'reserve currencies'

Much like how assets such as oil and gold are priced in US dollars because the US dollar is the world's most recognizable and powerful currency, so it is with crypto, with most altcoins being priced in Bitcoin and/or Ethereum.



What follows is a rundown of the potential benefits and drawbacks of each currency to help you decide which you might like to buy.



■ Pros

- + It's the original cryptocurrency with brand recognition.
- + Its code has been battle-tested in the real world and has withstood countless attempts to hack it.
- + Bitcoin has the highest **liquidity** of any cryptocurrency—making it easier to get better prices when you buy or sell.
- + An extremely active online and offline community.
- + The supply of Bitcoin is capped at 21 million coins. There will never be more.

Liquidity | A high volume of activity in a market.

■ Cons

- The Bitcoin community is passionate, which has led to divisions over how the development of the coin should proceed. This has sometimes slowed development to a snail's pace.
- Transactions can be expensive and slow when the network is busy.
- Transaction times are generally slower than those of more modern cryptocurrencies.



ethereum

The Ethereum blockchain focuses on running the programming code of any **decentralized application** built upon it.

Ether, the coin that powers the Ethereum blockchain, wasn't meant to be viewed or used as a currency, but rather as the 'gas' that applications 'burn' as payment to use the Ethereum platform.

■ Pros

- + A large number of developers are working on it.
- + The Enterprise Ethereum Alliance is an organization helping to accelerate the adoption of Ethereum, and its members include Microsoft and Intel.
- + The Ethereum open-software platform allows developers great freedom to create, and it embraces breakthrough technologies such as **smart contracts**—meaning applications can be built that we've never seen the likes of before.
- + Fast and cheap coin transactions.
- + A huge number of altcoins exist atop the Ethereum blockchain.

Decentralized application | An application run on a decentralized network designed to avoid any single point of failure.

Smart contract | A computer protocol to digitally facilitate, verify, or enforce the negotiation or performance of a contract.

■ Cons

- The Ethereum open-software platform leaves it more open to

attack—the more complicated a platform, the more ways it can be hacked.

- A lower liquidity than Bitcoin.
- Less brand recognition than Bitcoin.
- The next milestones on the Ethereum development path, such as scaling for mainstream usage, may be a year or more away.



Those were very short, simplified lists, skimming over complex issues that surround Bitcoin and Ethereum.

Before you decide to invest in one or both (there is strength in diversification, remember), I strongly suggest you spend a few hours, *at minimum*, reading up on each.

Study the writings of Bitcoin and Ethereum fans and haters, its promoters and detractors. Learn about their technological innovations and the issues that dog their growth and mainstream acceptance.

Remember: smart investors are informed investors.



Once you've decided on what you want to buy, you're ready to start the process.

Cryptocurrencies are purchased on an *exchange*.

Some exchanges allow you to use real-world money to buy digital coins, as well as sell them again. While other exchanges only allow you to trade using digital coins—for example, to trade Bitcoin for an altcoin such as Ripple.

Somewhat obviously, I'm going to start by describing how to use an exchange that lets you use real-world money to buy Bitcoin and Ether.

There are a growing number of exchanges out there that let us do this. Some are more trustworthy than others, some outright scams.

As you may remember, few governments or agencies police this market yet, so as a beginner you should play it safe and stick to the most popular and well-known cryptocurrency exchanges.

In that vein, I'm recommending you use Coinbase, founded in 2012, as your first place to purchase Bitcoin and Ethereum. It has a simple interface and is considered the most law-abiding, trustworthy and regulated cryptocurrency exchange in the world.

Because Coinbase is committed to following 'know your customer' and anti-money laundering laws, it requires two documents to successfully sign up:

■ **A form of photo ID**

Such as a passport, driving license or national identity card.

■ **A proof of address**

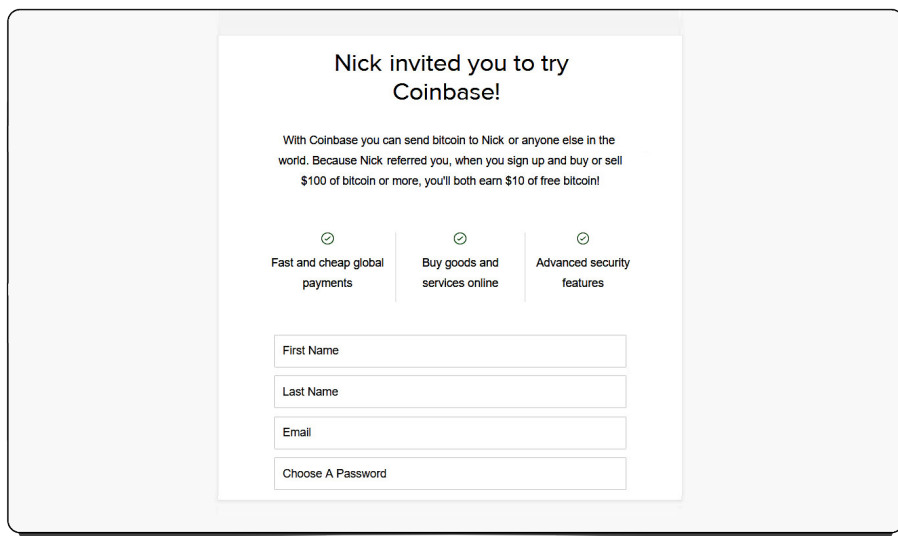
Such as a utility bill or bank statement.



Once you've collected those, let's get started. Keep in mind, things move quickly in the crypto space, so this sign-up process may differ slightly or the site may look a little different when you come around to doing it yourself.

In your web browser, go to the URL:

<https://getcrypto.info/coinbase>



■ You'll be forwarded to Coinbase, with a personal invitation—from me! Using this invitation means that, once you're signed up, if you spend \$100 (or the equivalent in your currency) you get an extra \$10 or the equivalent **for free**.

On the Coinbase sign-up form, write your name exactly as it is displayed on your ID.

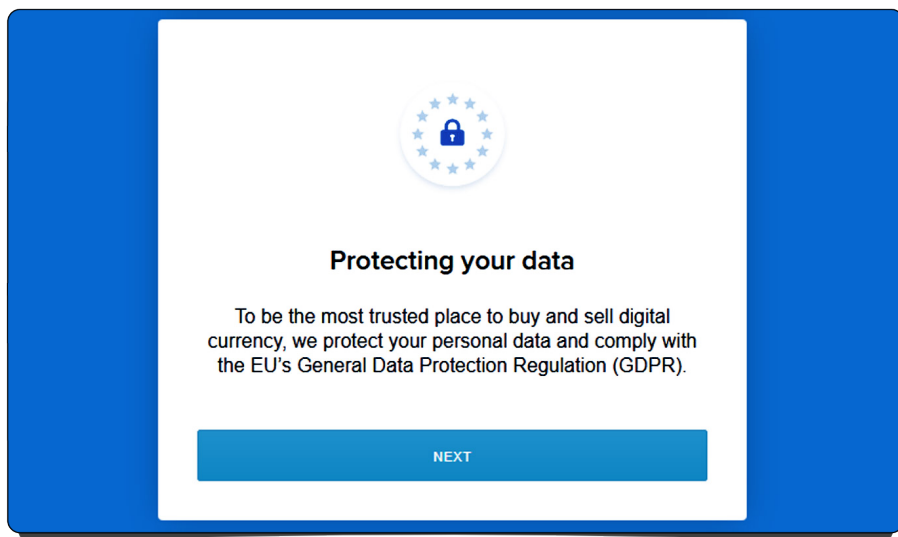
Enter your email address.

Now enter a secure password, something you don't use for any other website. Remember, this is dealing with money, so you don't want to use a password that someone might guess or be able to obtain from another site that's been hacked.

A secure password incorporates capital letters, numbers and punctuation marks, *for example*: BridgeR!4499!

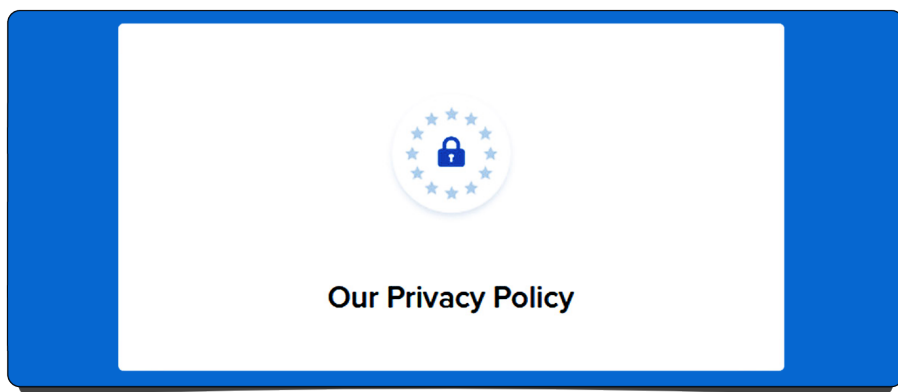
You may have to prove you're not an internet bot by clicking a box, and then another tick box to certify you're over 18 and agree to the Coinbase terms and conditions.

Press 'Sign up' once you're done.



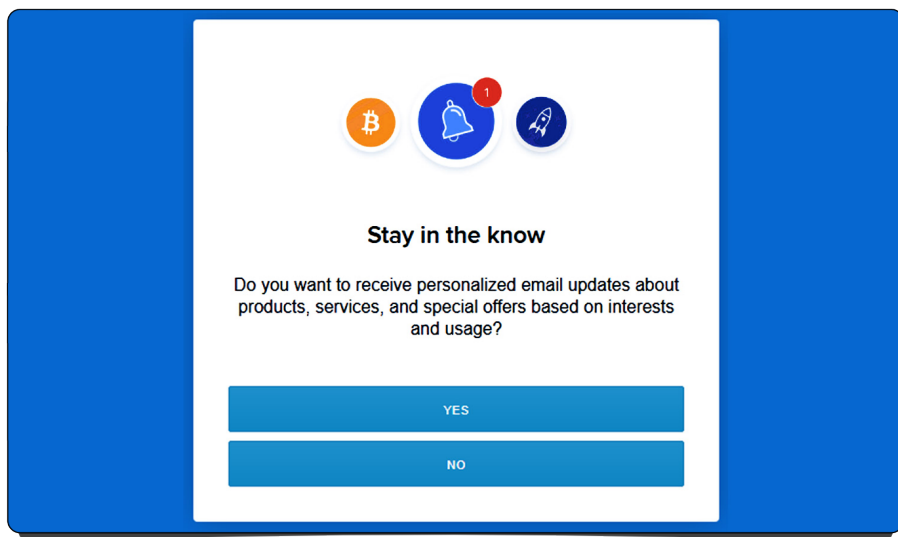
- You may be given a warning about how Coinbase protects your private data. This is perfectly normal and refers to a European Union regulation.

Click 'Next'.

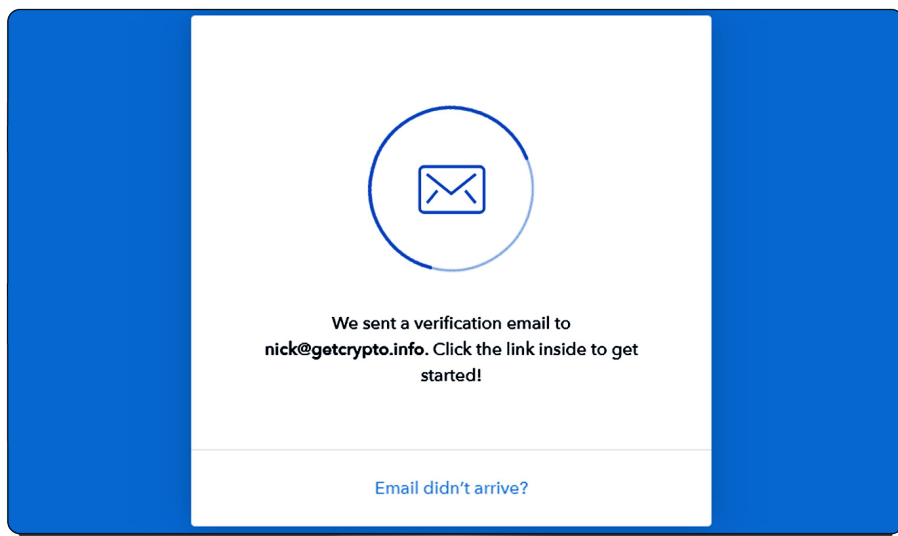


- Coinbase may present you with its privacy policy.

Have a read through if you feel like punishing yourself, and once you're ready, scroll to the bottom of the page and press 'I acknowledge'.



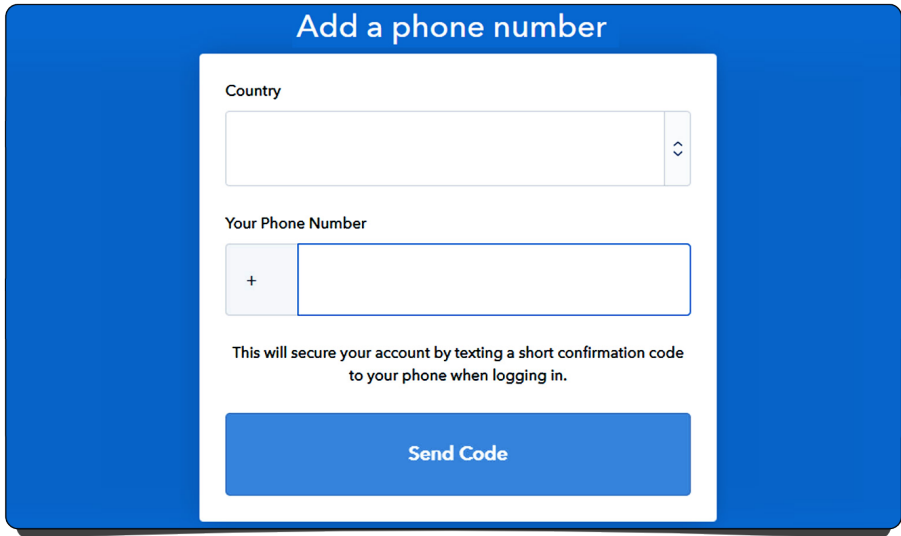
- Coinbase will ask if you want to join its mailing list. It's up to you, but it's probably a good idea to say yes so that you can stay up to date with new services, security advice and so on.



- You will be sent an email to confirm your address.

Go into your email account, find the email and click the link in it. This will enable your account.

You may be asked to use your new account details to log in.

A screenshot of a mobile application interface with a blue background. At the top, the title "Add a phone number" is displayed in white. Below the title, there is a white rectangular form. Inside the form, the label "Country" is positioned above a white input field with a small downward arrow icon on its right side. Below this, the label "Your Phone Number" is above another white input field. To the left of this second input field is a small grey square containing a white "+" sign. Below the phone number input field, there is a line of text: "This will secure your account by texting a short confirmation code to your phone when logging in." At the bottom of the white form is a solid blue button with the text "Send Code" in white.


- You'll now be prompted to add a phone number.

Pick the country you're based in using the drop-down menu, and then type in your phone number.

Press 'Send Code'.

Add a phone number

Please enter the seven digit code we just sent to your number +xx xxxx xxxx



Didn't receive the SMS? [Re-send SMS](#)

[Use another phone number](#)

Submit

■ You will be sent a text message containing a seven digit verification code. Type that code into the box and press 'Submit'

Verify your identity

Financial regulations require us to verify your identity. [Learn more.](#)

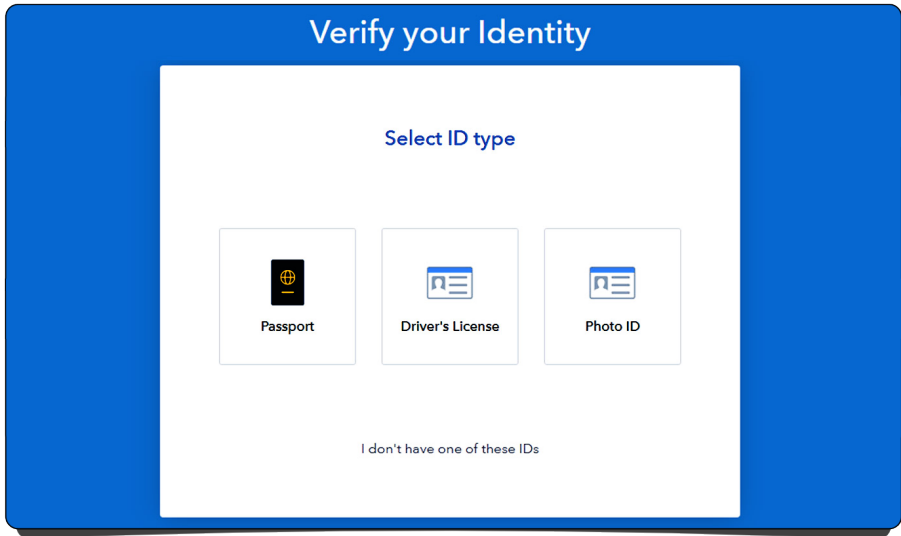
First Name	Last Name	What will you use Coinbase for?
<input type="text"/>	<input type="text"/>	Select an option
Date of Birth		What is your source of funds?
Month	Day	Year
Street Address	Current Occupation	
123 Main Street	Select an option	
Unit #	Employer	
	Employer	
City/town		
Post code	Country	

Continue

■ Coinbase takes verifying your identity very seriously. It's a pain, but it is why Coinbase have a reputation for being the most trusted and legally compliant exchange.

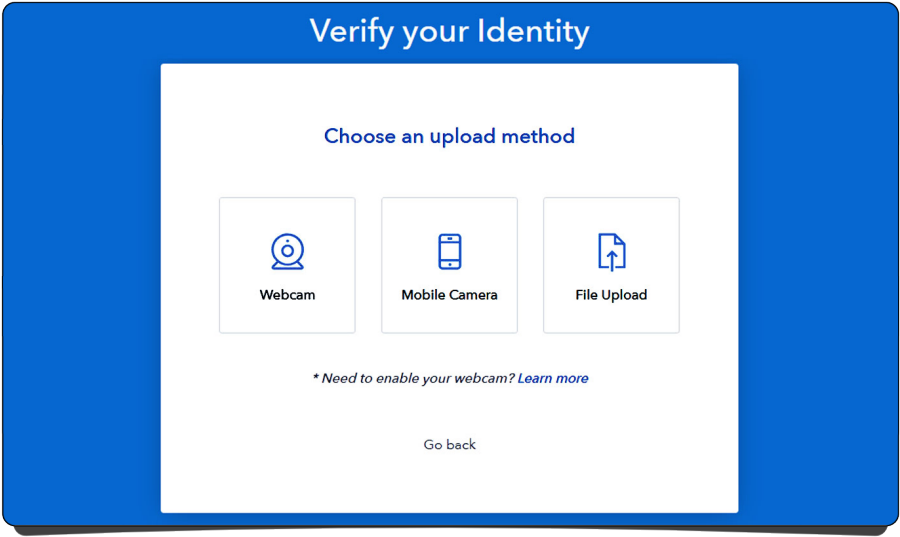
Input your date of birth and address, and answer the questions about why you want to use Coinbase, where your funds will be coming from and your current employment circumstances.

These questions may seem intrusive, but they are required to help Coinbase comply with money-laundering laws.

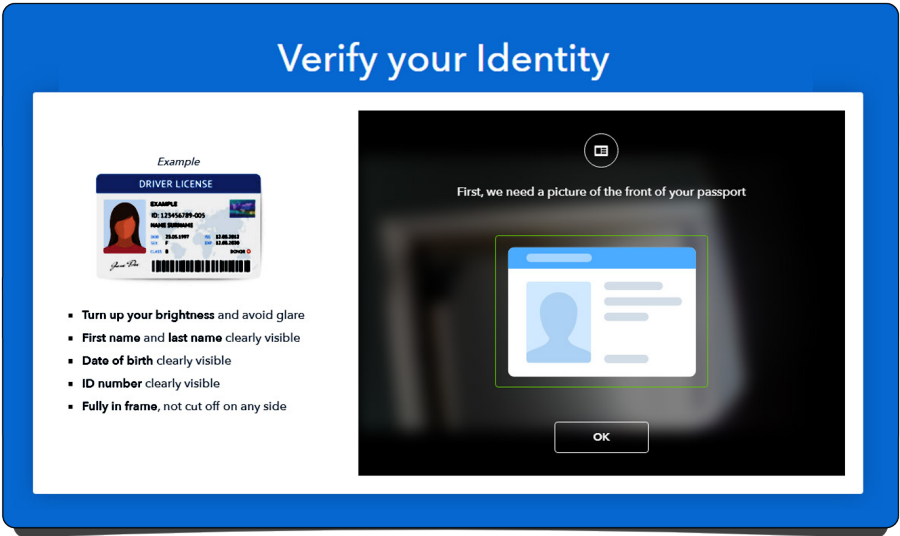


■ You'll now be asked to upload your photo ID to confirm your identity.

You have a choice between providing your passport, driver's license or another photo ID, such as a national identity card.



■ Once you’ve chosen, you’ll be given various options on how to upload your ID—via either webcam, mobile or cell phone or a file upload:

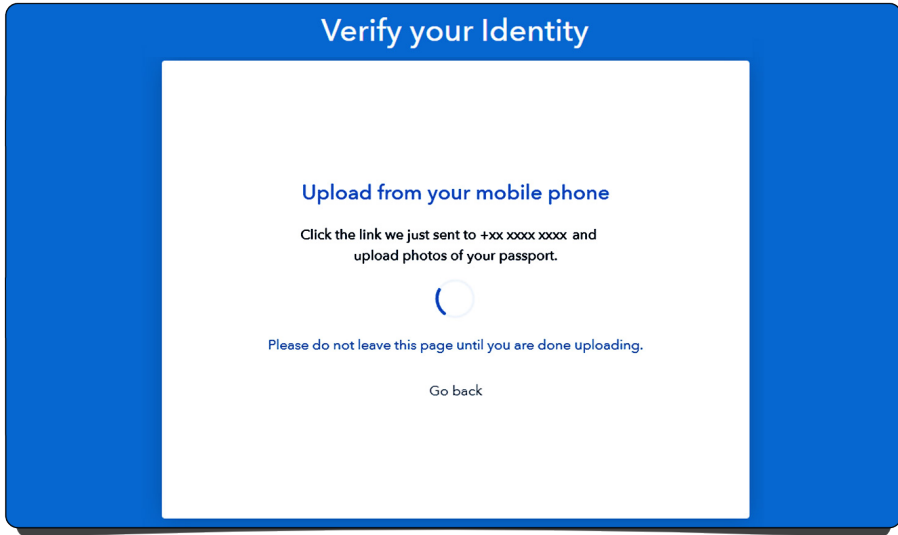


■ Webcam

If you choose to take a picture of your ID via webcam, your web browser may prompt you to allow it to access your webcam. You

have to click 'Allow' for it to work.

Once your webcam is accessed, use it to take a picture of the back and front of your ID, following the prompts given to you by Coinbase.

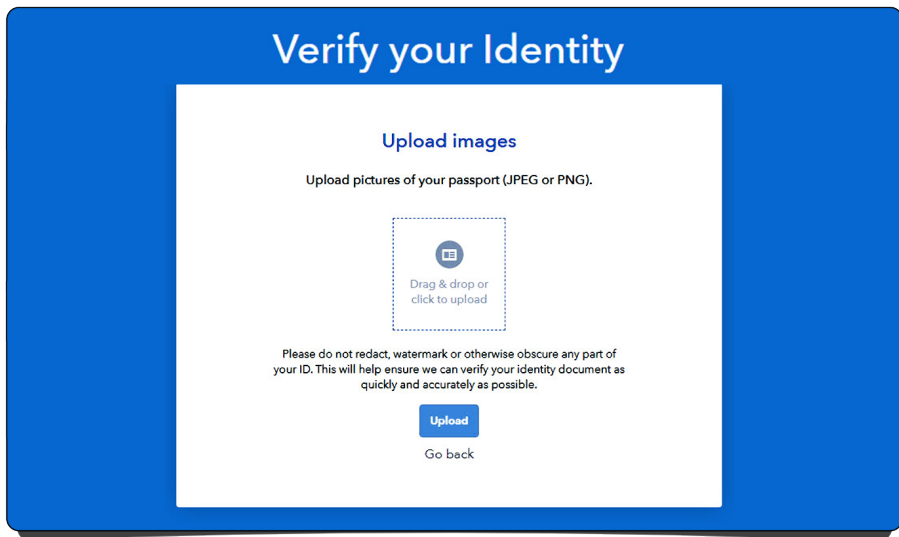


■ Mobile or cell phone

If you choose to use your mobile to upload your ID, you will be sent a text message with a web link in it.

Click that link, and you'll be taken to a web page that will prompt you to take photos of your ID.

You need to leave the Coinbase page open in your browser while you're doing this. Otherwise, the process will fail.



■ File upload


This is probably the easiest option, since all it involves is scanning or taking a photo of your ID and uploading it from your computer.

The file can only be in the format of JPEG or PNG. A PDF will not be accepted.

Upload a proof of address

Please select a document from the following list to submit, dated within the last 3 months.

Choose a type of document



Drag & drop or click to upload a file.
(PDF, PNG, JPEG under 10MB)

Browse for a file to upload


■ You'll now be prompted to upload a proof of address, such as a bank account statement or utility bill, which must be dated from within the past three months. Most banks and utilities allow you to download documents like this from your online account.


Click 'Browse for a file to upload', then find and upload the file from your device.

Accepted file formats are PDF, PNG and JPEG.

Verifying your documents

We've recieved your documents. Verification often occurs within hours, but may take longer. We will email you as your verification updates.

 **Passport**
Verifying...

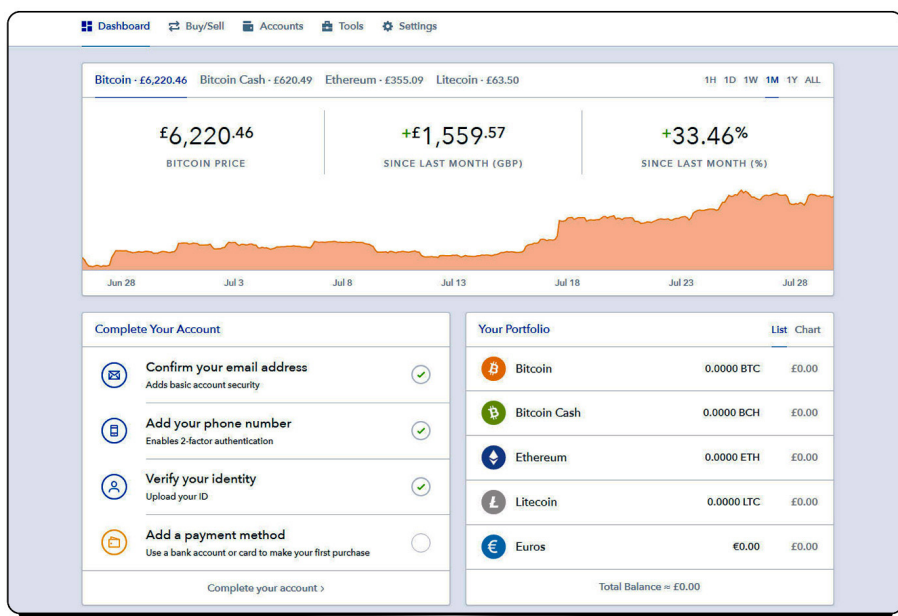
 **Bank Statement**
Verifying...

■ Your documents will now be under review. It can take anything

from minutes to hours for them to be approved.

If your documents are rejected, try again. If they're rejected again, try taking clearer, better-lit pictures and try again. If they fail yet again, try a different form of ID or document if you have it, or try a different verification method.

Once you're successfully verified, if you've left the browser window open, you'll automatically be taken into your new account. You'll also be sent an email to confirm your account activation.



■ Once you're in your new Coinbase account, you should see the screen above. That's a lot of information to take in at once but don't freak out. It'll all make sense soon.

But first you're going to add some extra security to your account.

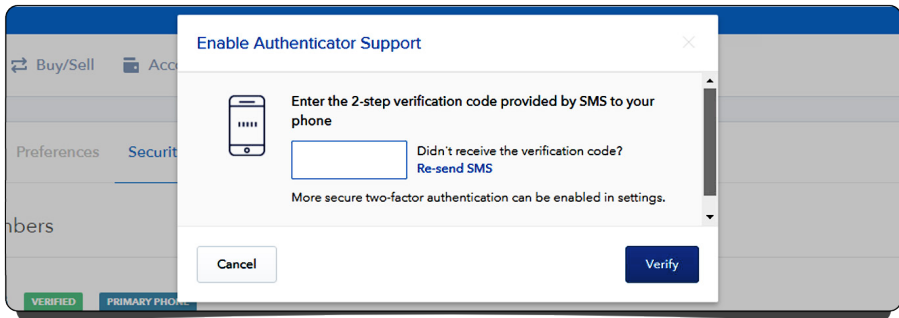
Click your name in the top right corner of the page, and in the drop-down menu select 'Settings'.

Now click 'Security'.

In the options listed under ‘Two-Factor Authentication,’ click ‘Enable Authenticator.’

You will be sent a text message to your mobile or cell phone, and it will contain a code. Enter that code into the pop-up that has appeared in your browser.

Press ‘Verify.’



■ You’ll now be given an option to ‘Enable Authenticator Support.’ It’s important to do this, as it will strengthen the security on your account, further protecting it from scammers and phishing attempts.

Two-factor authentication effectively means that when you log into Coinbase you’re going to have to provide a secondary method of proving you’re who you say you are, and this is best done through an authentication app on your mobile or cell phone.

The app I recommend is called Authy, and this link will forward you straight to the official site:

<https://getcrypto.info/authy>

Use the links on that site to go to your chosen app store and then install Authy.

Once it’s downloaded to your phone, open the app.

Enter your phone/cell number. Press OK.

Enter your email address. Press OK.

Choose whether you'd like to get your account authentication notification via a phone call or text message. If you choose a phone call, you might want to have a pen and paper ready.

Enter the registration code you get from the call or text into the app.

Authy will tell you that you don't have any accounts yet. Press the plus button.

You'll be asked to enter a password to create a backup of your Authy account. Enter something you'll easily remember but that would be hard for someone to guess.

Press 'enable backups'.

Authy will present you with some information about your new account. Have a read, and once you're done, press 'Scan QR code.'



The screenshot shows a dialog box titled "Enable Authenticator Support" with a close button (X) in the top right corner. Below the title, it displays the "Authenticator Secret Code: ayqjggcxcajqjggc". A QR code is shown below the code. Underneath the QR code is a list of five instructions: 1. Install an authenticator app on your mobile device if you don't already have one. We support [these options](#); 2. Scan QR code with the authenticator (or tap it in mobile browser); 3. Please write down or print a copy of the 16-digit secret code and put it in a safe place; 4. If your phone gets lost, stolen or erased, you will need this code to link Coinbase to a new authenticator app install once again; 5. Do not share it with anyone. Be aware of phishing scams. We will never ask you for this key. Below the instructions, a bold warning states: "Once an authenticator app is enabled, all other 2FA methods will not be accepted." At the bottom, there is a section with a smartphone icon and the text "Enter the 2-step verification code provided by your authentication app" next to an empty input field. At the very bottom are two buttons: "Cancel" and "Enable".

■ Your phone's camera will be enabled. Point it at the QR code Coinbase has given you, similar to the image above. Authy will use the code to create a Coinbase account on your phone.

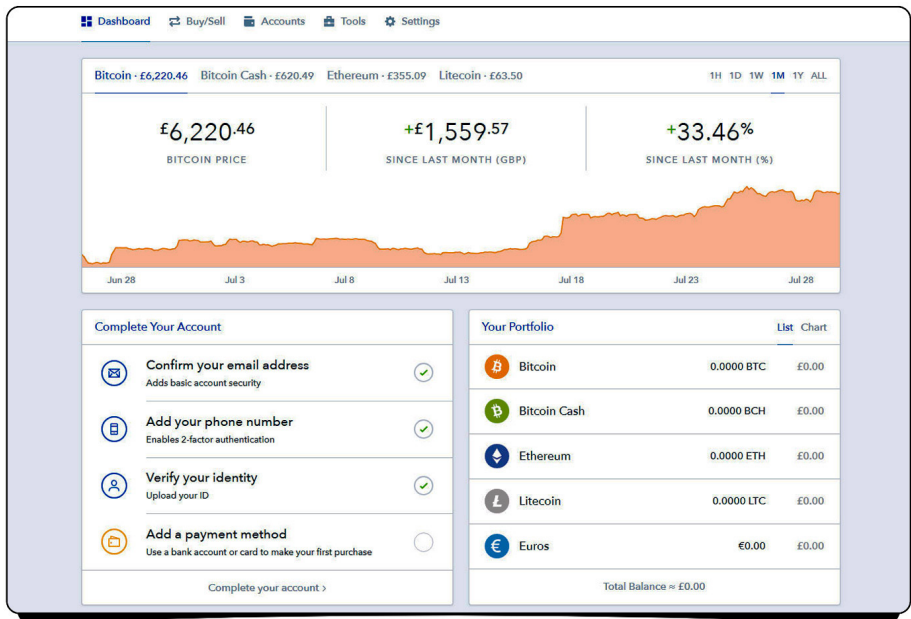
You'll be asked to give the account a name. Call it 'Coinbase'

On your phone, you will now be taken to a screen that gives you a unique code, which is refreshed every thirty seconds.

In Coinbase, enter the current code shown in Authy and press 'enable.'

Your Coinbase account is now protected by two-factor authentication.

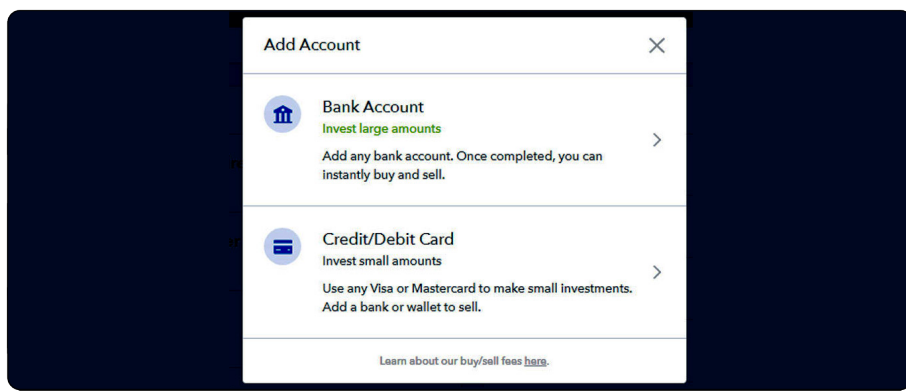
From now on, when you log into coinbase or send coins, you'll need a code from your Authy app to verify the activity.



■ Now that you've secured your account, lets add a payment method to it so you can buy some coins.

Click the 'Dashboard' button.

Click 'Complete your account.'



■ The options available to you may differ depending on the country you're in, but generally you'll be offered the option to add:

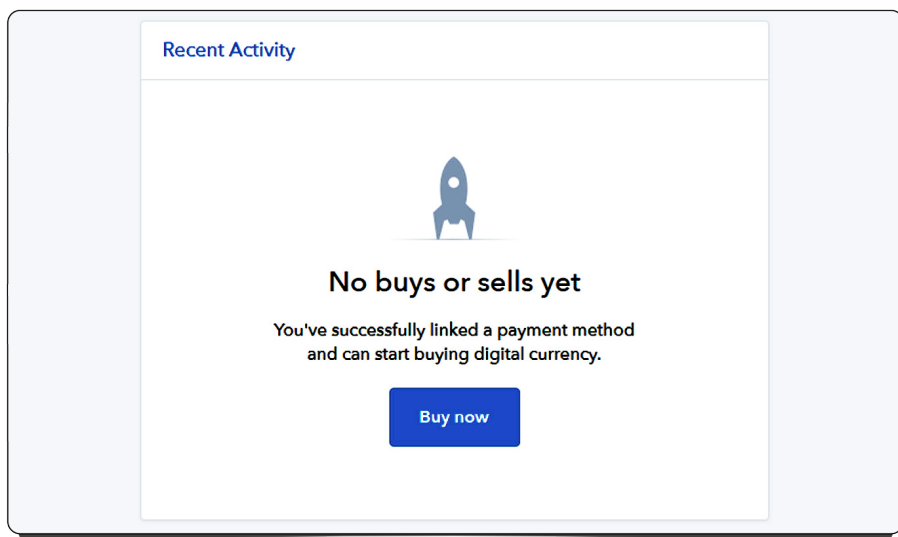
A bank account

The slower option, but with higher buy limits and generally fewer fees when buying coins.

A credit or debit card

The fastest option for buying, but with lower buy limits and higher fees than using a bank account.

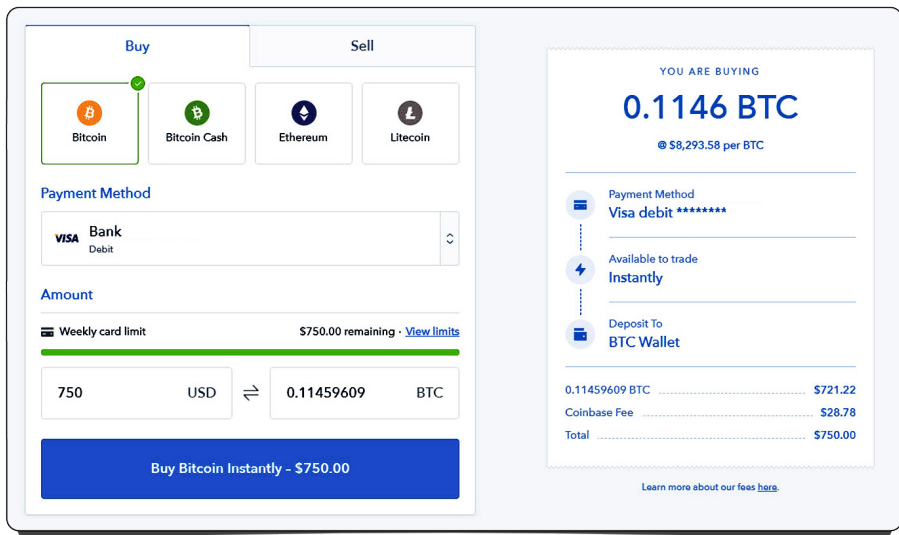
Once you've decided which option you'd like to use, click the desired button and follow the instructions to add your payment details.



- When you've successfully added your payment method, your recent activity will let you know you're ready to buy.

Either press the 'Buy now' button or the 'Buy/Sell' button along the top menu.

Note: The buying processes for Bitcoin and Ethereum are essentially identical, so though the following screenshots show Bitcoin, the same process applies if you're buying Ethereum.



- Select either Bitcoin or Ethereum from the menu of coins available to buy.

Unless you've added more than one payment method, there's no need to choose which you'd like to use, Coinbase will automatically default to the one you added earlier.

Note: Because your account is new, you'll have a relatively low initial purchase limit. This grows with each purchase you make.

As you can see from the screenshot, you don't have to purchase a whole Bitcoin or Ether. Coins can be purchased down to many decimal places so that, as in the image above, when a \$750 purchase is made for example, the amount of Bitcoin received is 0.11459609.

If you want a perfectly round number of Bitcoin or Ether, you can enter the amount of coin you want to buy instead of the amount of currency you want to spend.

The info panel on the right of the page will summarize the entire

purchase, letting you know your payment method and whether the coins will be available in your account immediately or in a few days (this can differ depending on your payment method and country) and which of your Coinbase wallets the coins will be deposited in.

You'll also see the total that your bank account or debit/credit card will be billed, and how much of that is the Coinbase exchange fee.

Once you're happy with what you see, press 'Buy Bitcoin/Ethereum instantly'.

YOU ARE BUYING

0.1146 BTC

@ \$8,293.58 per BTC

Payment Method
Visa debit ****

Available to trade
Instantly

Deposit To
BTC Wallet

0.11459609 BTC	\$721.22
Coinbase Fee	\$28.78
Total	\$750.00

[Learn more about our fees here.](#)

Confirm your transaction

Review all the details and confirm your transaction below.

Confirm Buy

[Cancel transaction](#)

■ You'll be asked to confirm the transaction.

Check the details again and be sure it is correct.

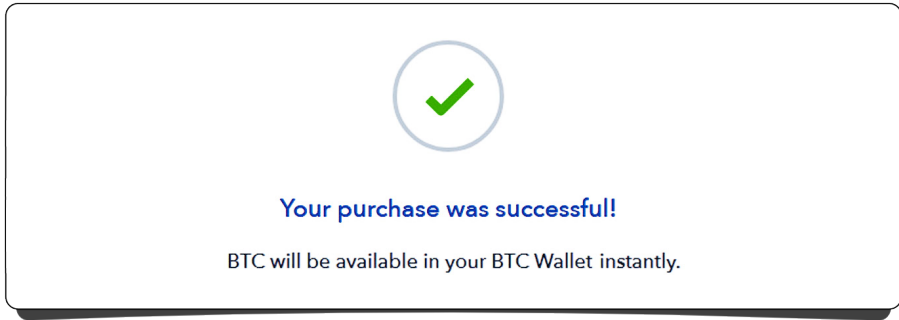
When you're happy, press 'Confirm Buy'.

Unfortunately, because many banks are suspicious of the cryptocurrency revolution, your bank may block your first Coinbase transaction.

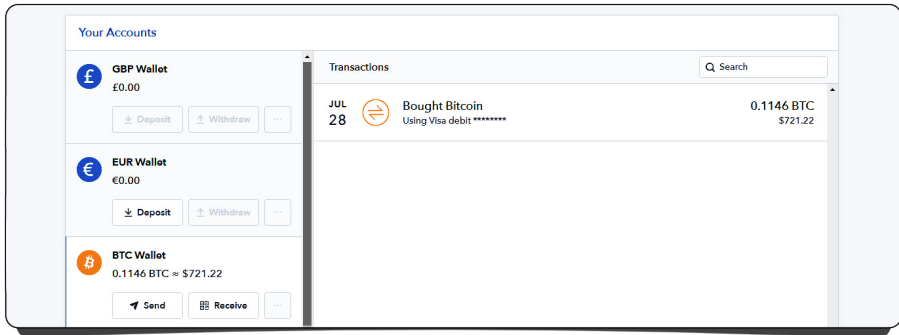
So you might get a message or call from your bank asking you to review 'suspicious' activity on your account, or you may even have

to call your bank yourself to get it to white-list Coinbase purchases on your account.

Once it has, you can go through with the purchase again, and it should be approved.



■ Once your purchase is successful, you'll get this message, and your coins will be in your wallet, usually immediately.



■ Press 'Accounts' in the top menu.

Depending on whether you bought Bitcoin or Ethereum, click the corresponding wallet. As you can see, your coins are now showing.

Congratulations, you now own some cryptocurrency!

■ Alternatives to Coinbase

If in the future you decide you want to check out some other exchanges for your Bitcoin or Ethereum purchases, there are plenty out there. *But you have to be very careful and be sure that you choose a trusted company.*

Consider:

- How long has the company existed?
- Where is it based?
- Who are running it, and are their identities public?
- Are they insured against theft and company failure?
- Have there been any prior incidents of insider hacking or losses due to lax security practices or bad coding?

Some popular exchanges that have good reputation's include:

- [Coinfloor.co.uk](https://coinfloor.co.uk) (UK only)
- [Coinmama.com](https://coinmama.com)
- [Coinsquare.com](https://coinsquare.com) (Canada only)
- [Gemini.com](https://gemini.com)
- [Kraken.com](https://kraken.com)
- [Uphold.com](https://uphold.com)

This is far from an exhaustive list. And, as always, do your own research before using any of these sites: seek reviews, do your homework and be a smart investor.

5

Storing your crypto.

Keeping your coins safe and secure.

At the moment your coins are safely stored on Coinbase.

According to Coinbase, the company holds less than 2% of customer funds online, and those are insured against theft. The rest is stored in ‘cold storage’—which is a fancy way of saying the wallets storing the coins are not connected to the internet.

Despite countless attempts, Coinbase has never been hacked.

But never say never. Other exchanges have been hacked in the past. Take a moment to do a web search for the ‘Mt. Gox hack’ to see for yourself.

Also, bear in mind that a key principle of Bitcoin is that you don’t trust a third party with your coins. Rather, you hold them yourself. Because if you don’t hold something yourself, do you truly own it?

If you want an easy life, then feel free to leave your coins on Coinbase. They’ll probably be safe. But if you want to take control of your coins—to be your own bank—you’re going to want to move them from Coinbase to a personal wallet that’s under your exclusive control.

Note: If you're considering exchanging your Bitcoin or Ethereum for other altcoins, leave your coins on Coinbase for the moment.

■ What is a wallet?

You store physical money, such as coins and notes, in a physical wallet.

You store digital money, such as Bitcoin and Ethereum, in a digital wallet.

A digital wallet is software installed on your computer, phone or secure server that allows you to interact with your coins and store them at a unique wallet address on a blockchain.

■ What's a wallet address?

Just as a bank account has a unique number to identify it, so does a cryptocurrency wallet.

Each wallet address, sometimes referred to as a public key, is identified by a unique sequence of letters and/or numbers, and looks something like this: 1MvSr21cJZhnLxbLc4o8fVsE6viFWfsqW

Every coin that exists on a blockchain is assigned to a wallet address—it's how we know who owns what.

■ How do I access a wallet?

Just like you use a PIN or password to access your online bank or ATM, you can use a 'private key' to access a digital wallet. A private key is essentially a code that allows a wallet to be opened and coins sent from it.

Keeping a private key safe and secure is *very* important, since if

you lose it, your cryptocurrency can be lost. If anyone accesses your private key, he can use it to steal your cryptocurrency.

It's important to understand that cryptocurrencies such as Bitcoin don't get hacked, but *the devices that store the private keys do*.

■ What are my wallet options?

■ *Mobile wallet*

Providing access on the go via your mobile phone, but at the cost of security.

- + Practical and easy to use.

- + Easy to accept and send payments quickly.

- + Additional features, such as QR code scanning, which makes sending payments quick and easy.

- Phones are insecure. You could lose your coins if your phone is compromised by malware, keyloggers, viruses or malicious apps—or simply if someone gains physical access to it.

■ *Web wallet*

Web wallets are typically cryptocurrency wallets that you access via your web browser.

- + Fast way to complete transactions.

- + Ideal for holding *small* amounts of cryptocurrency.

- + Some are able to manage multiple cryptocurrencies.

- Web wallets are susceptible to phishing scams, malware, insider hacking, DDOS attacks and outdated security measures.

- Your wallet is sometimes 'out of your hands' and the information is stored on a third party's server.
- Your wallet's security is in the hands of the company you sign up with. If it goes down, you could too.

■ *Desktop wallet*

A wallet program downloaded and installed on your desktop computer or laptop.

- + Generally easy to use.
- + Private keys are under your control, not a third party's.
- If your computer is connected to the internet, there can be security concerns, such as malware, keyloggers, viruses, etc. on your computer.
- You must make sure you keep safe and secure backups of your wallet. If your computer dies and you have no backup, you lose access to your coins.

■ *Hardware wallet*

Physical devices that plug into your computer like a USB stick. They encrypt the private key to your wallet so that no one can know it.

That way, only someone with physical access to the hardware wallet and who knows its password can access the coins on it.

- + The gold standard of crypto wallet security.
- + Remove any anxiety about having your wallet hacked.
- Not as simple or quick to use as other wallet types.
- Must be purchased.

■ Recommendations

Using a web wallet is strongly discouraged. Sure, they're easy to use and quick to set up, but they require trust in a third party to maintain their security, and there's no recourse if something goes wrong.

A mobile wallet is useful for storing small amounts of crypto you intend to use day to day, such as using Bitcoin for online shopping.

If you don't want to pay for a hardware wallet, a desktop wallet on your computer is the best choice. But be aware you'll need a USB stick or an external hard drive to back up your private key in case of computer failure. How to set up a Bitcoin desktop wallet is covered in the next chapter.

Otherwise, if you want to take security seriously—and you should—a hardware wallet is a must buy.

■ But what if I lose my hardware wallet?

If you lose your hardware wallet, anyone who finds it (if they even know what it is) can try to guess your password a very limited number of times, and then the device wipes itself.

To regain access to your coins, you simply buy another hardware wallet and restore your information using a secret recovery phrase that you're prompted to save the first time you set up your hardware wallet.

■ Choosing a hardware wallet

The two largest companies in the hardware wallet market are Ledger and Trezor.



■ Ledger Nano S

The Ledger Nano S is a compact and discreet hardware wallet, and wallet management is achieved through a small LCD screen and two buttons.

For more information and purchase links, go to:

<https://getcrypto.info/ledger>

Comprehensive instructions on setting up and using the Ledger Nano S are included with the item when you receive it.



■ Trezor

The Trezor is small and easy to use. It features two buttons and displays a lot of information on its small LCD screen.

For more information and purchase links, go to:

<https://getcrypto.info/trezor>

Comprehensive instructions on setting up and using the Trezor are included with the item when you receive it.

6

Setting up a Bitcoin wallet.

Install and use a personal Bitcoin wallet.

Using this guide, you can set up a Bitcoin desktop wallet, and then send your Bitcoin to it from Coinbase.

Note: Remember, security first. Do you have an anti-virus and anti-malware program installed?

And one more note: For the purposes of this guide, I'm going to assume you're using a Windows PC. If you're not, your installation experience will be slightly different, but the rest of the set up is essentially the same.

■ Downloading a Bitcoin wallet

An up-to-date list and links to download Bitcoin wallets can be found here:

<https://bitcoin.org/en/choose-your-wallet>

Note: As always, when clicking any links involving cryptocurrencies, be sure that the URL looks correct and secure in your browser.

■ From the list on Bitcoin.org, you're going to download the Electrum Bitcoin wallet, as it:

✚ Doesn't require you to download the whole Bitcoin blockchain (currently 145 gigabytes) to use it.

Remember: It's a good habit not to blindly follow advice when it comes to cryptocurrencies. Do your own research and be sure in your own judgment before taking action that could result in financial losses.

✚ It's been around for years.

✚ Over that time it's proven to be reliable and secure.

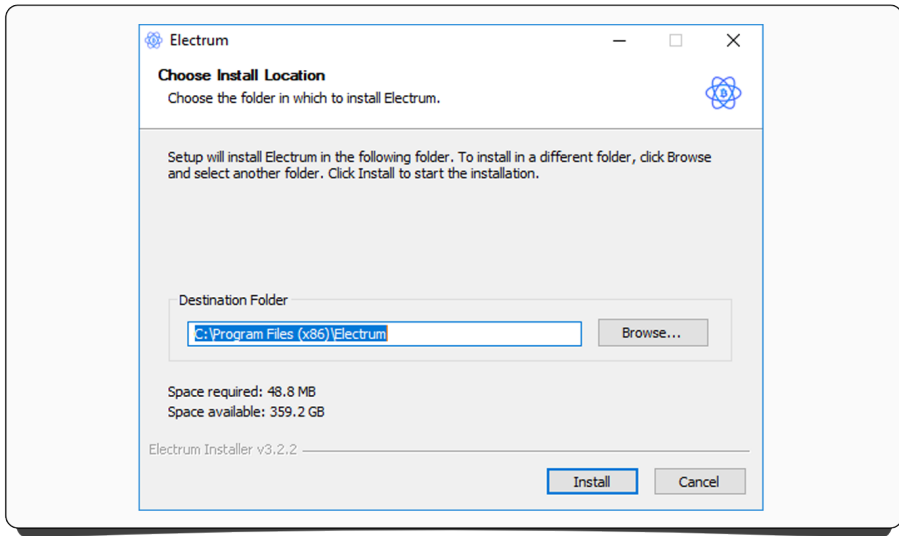
Either click the link on bitcoin.org to go to the Electrum official site, or go there yourself:

<https://electrum.org>



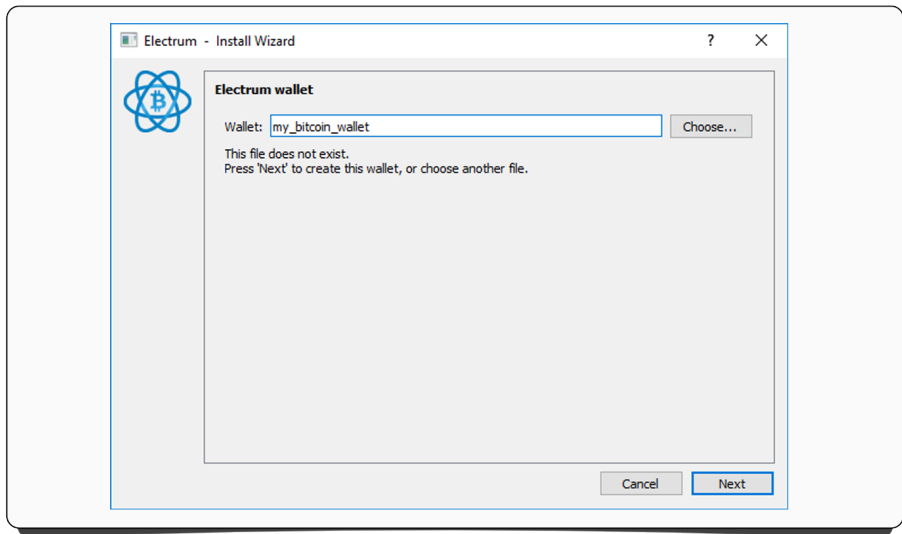
■ Press 'Download' along the top menu.

Choose the file under ‘Easy installation’ that matches your computer system and download it. For example, Windows users would pick ‘Windows installer’



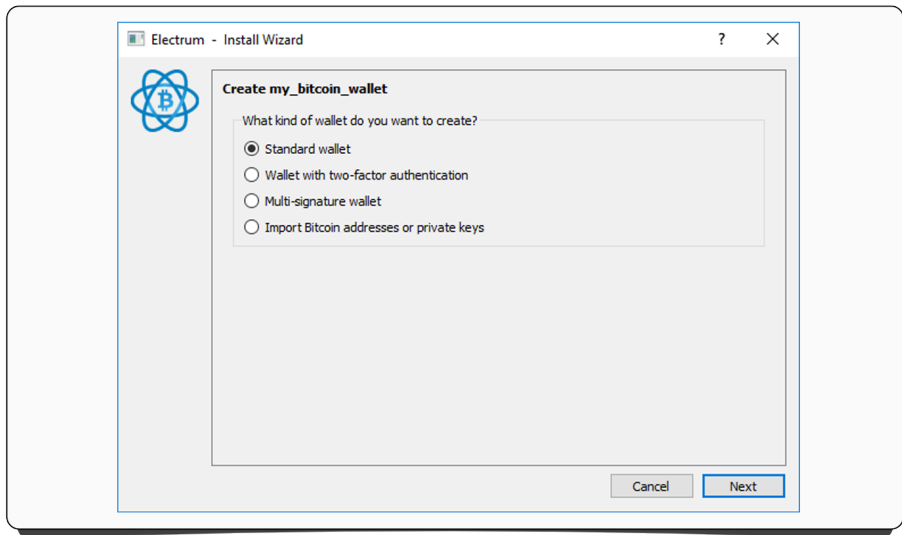
■ Once the file has finished downloading, you should run it, and then follow the installation instructions.

Once setup has completed, open the wallet, which will have been installed under the name ‘Electrum’ on your computer.



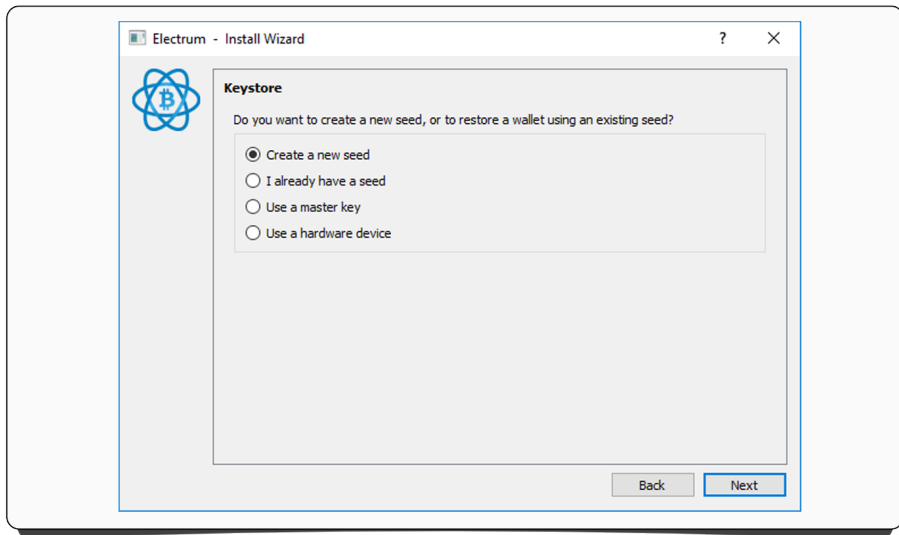
- You will be asked to give your new wallet a name. Choose something obvious, such as 'my_bitcoin_wallet'.

Click 'Next'.

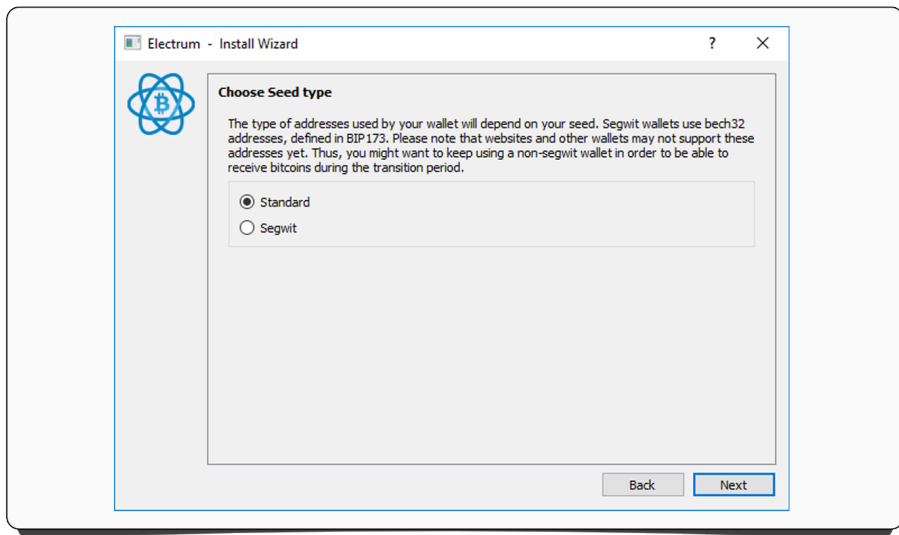


- On this screen keep 'Standard wallet' selected.

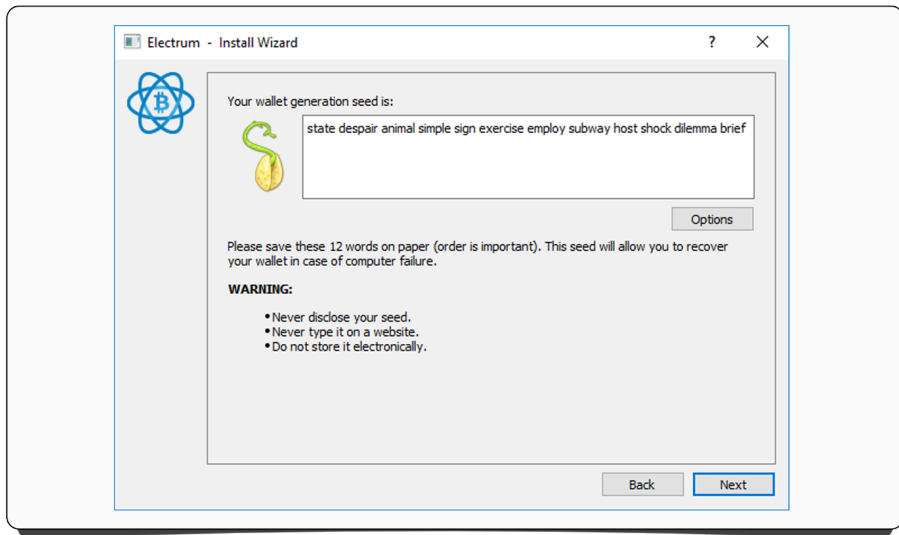
Press 'Next'.



- On this screen keep 'Create a new seed' selected. Press 'Next'



- When asked to choose a seed type, stick with 'Standard'
- Press 'Next'



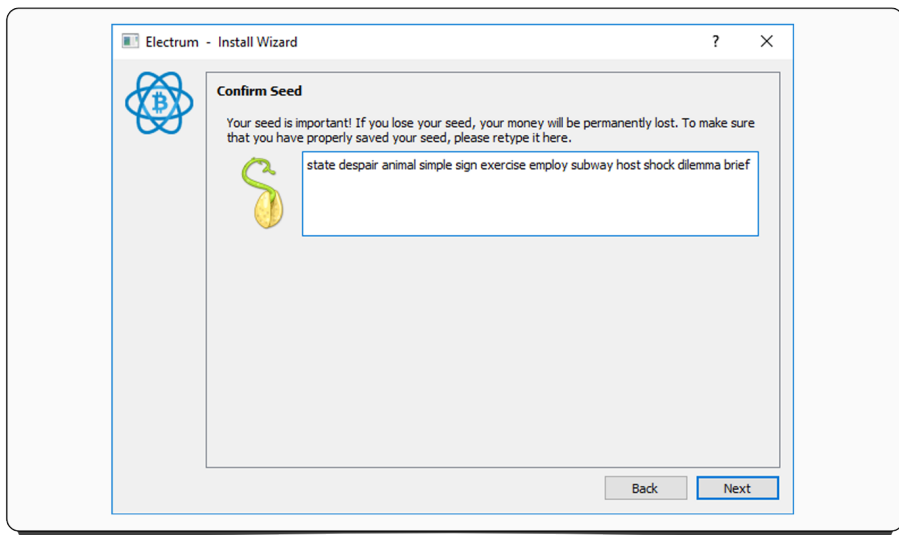
- You will be presented with your personal wallet seed.

This seed acts as a backup of your wallet and can be used to open your wallet from any computer without knowing your password.

It's **vitaly important** that you back-up this information somewhere safe.

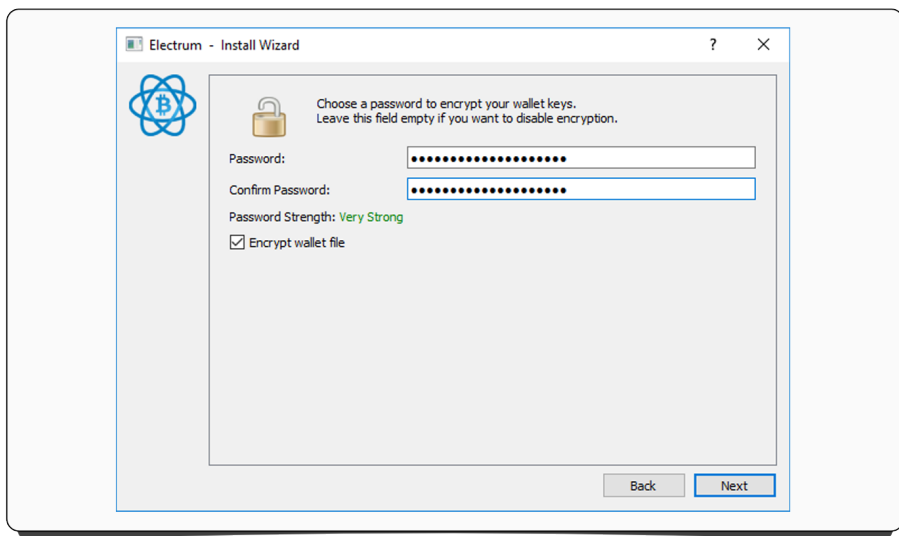
Note: If someone gets hold of this seed, he can open your wallet and take your coins. **Keep it safe!**

Press 'Next'.



- You now have to write your seed into the box to confirm you copied it correctly.

Once done click 'Next'



- You'll now be asked to enter a password.

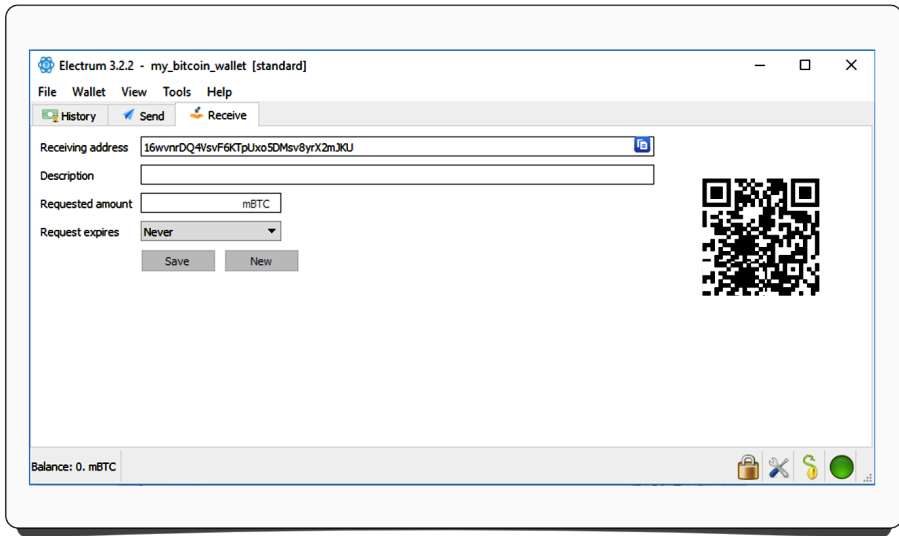
Make it something that would be hard to guess (but which you

won't forget!). It's a good idea to make it complicated enough that 'Password Strength' says 'Very Strong'.

Note: Don't tell anyone your password! If someone with access to your computer knows or guesses it they could steal your coins.

Keep 'Encrypt wallet file' checked. Press 'Next' twice.

Note: If you forget your password, the only way to gain access to your coins will be using the seed you saved earlier.

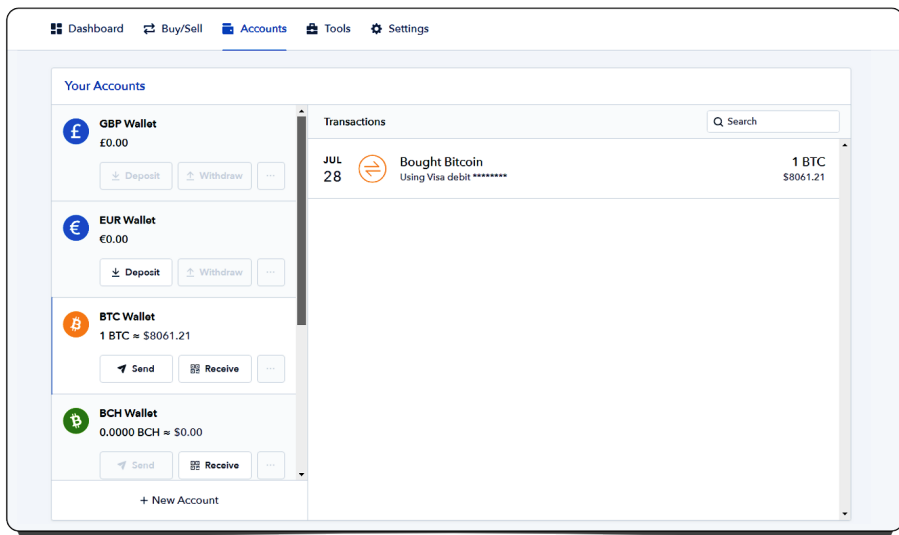


■ Your wallet is now open.

Press 'Receive' to find your personal wallet address—it's a long string of letters and numbers.

Use the 'copy to clipboard' button next to your personal wallet address to copy it to your computer memory.

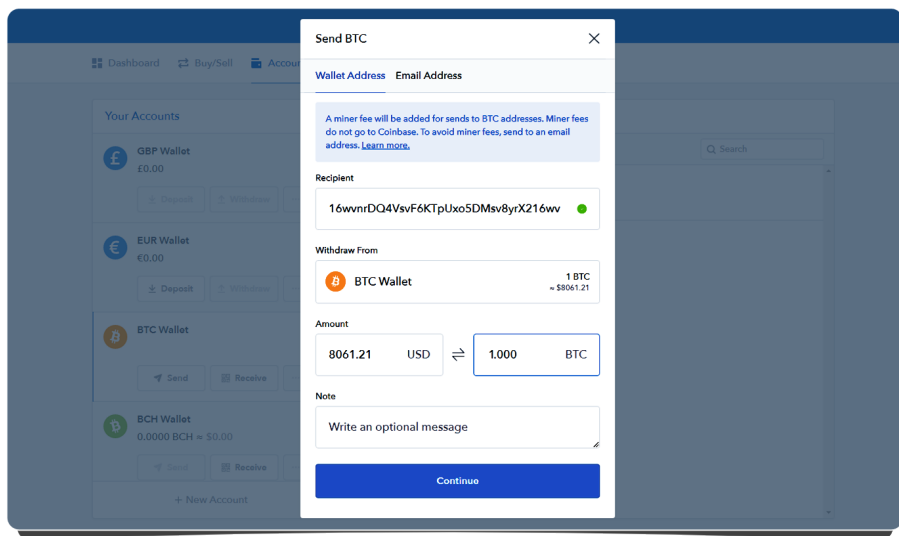
Keep the wallet open, since you'll need it again soon.



- Now go to Coinbase and log in.

Click 'Accounts' from the top menu, then find your Bitcoin wallet listed on the left.

Click 'Send'.



- In the 'Recipient' box, paste your personal wallet address from

Electrum. Double check that the address you just pasted into Coinbase matches your personal wallet address in Electrum.

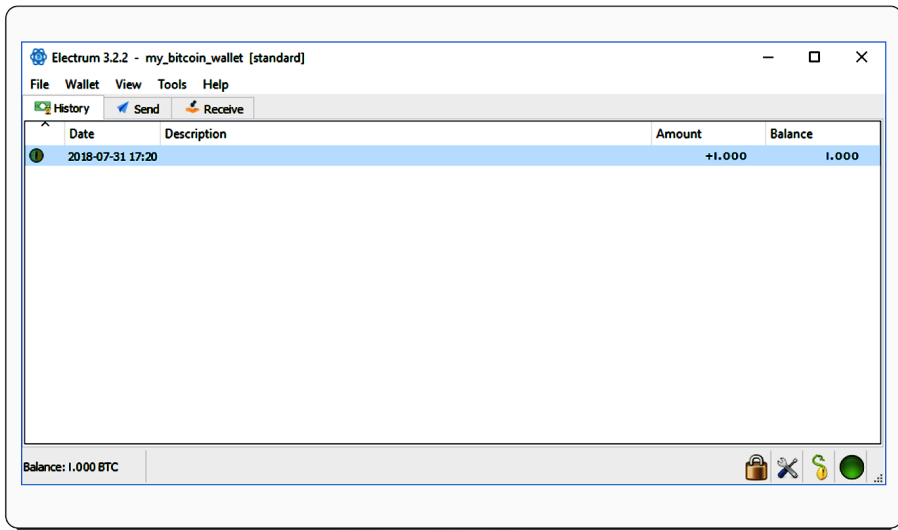
Back in Coinbase, in amount, type how much Bitcoin you wish to send to your Electrum wallet. There is a ‘use max’ option if you wish to send everything, but for your first transaction **I strongly suggest** you send only a small amount so you can get comfortable with the whole process.

Note: Coinbase will charge you a ‘miner fee’, which pays for your transaction to be added to the Bitcoin blockchain.

Click ‘Continue.’

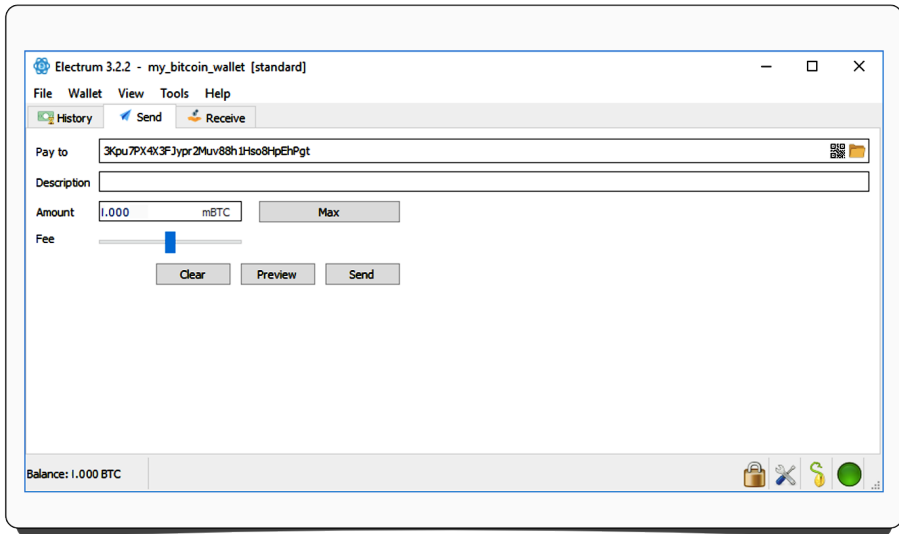
Coinbase may ask you to confirm the transaction with your password, phone or Authy app.

Follow the instructions until it confirms the Bitcoin are sent.



■ Now you simply have to wait for the Bitcoin to travel to your wallet. This generally takes 5 to 20 minutes.

Once the Bitcoin has arrived, it will show in your Electrum wallet ‘balance’ and the transaction will be viewable under the ‘History’ tab.



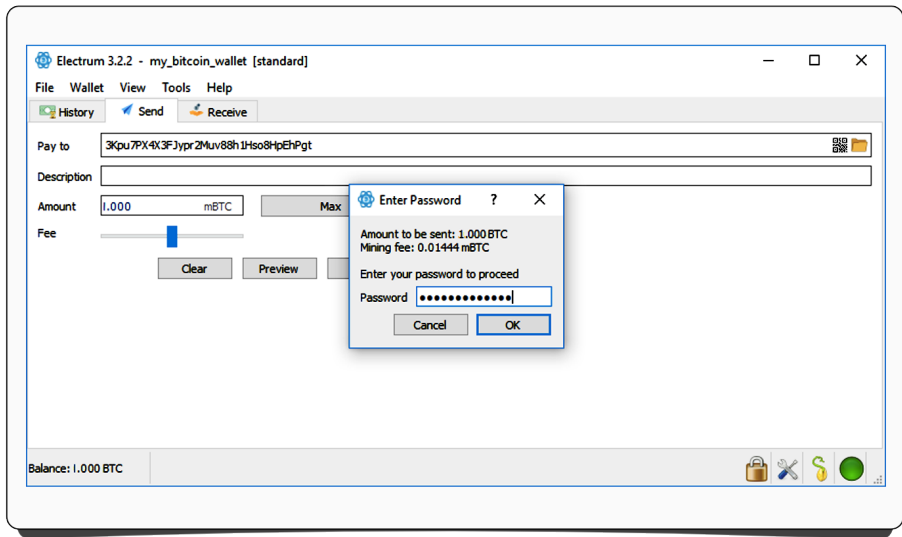
■ When you’re ready to send Bitcoin from your Electrum wallet, press ‘Send’.

Enter the wallet address of the person you’re sending Bitcoin to.

Enter the amount of Bitcoin you want to send.

Double check everything, just to be sure it all looks correct. Once it is sent, a transaction can’t be taken back—even if it went to the wrong place.

Once you’re happy, press ‘Send’.



- You'll be presented with a pop-up that will tell you:
 - How much Bitcoin you're sending.
 - The 'miner fee' you're paying for the transaction.

You'll also be asked to enter your wallet password.

Once you have, click 'OK'.

A pop-up will appear to tell you the payment has been sent.

If you click 'history', you will see the new transaction, marked as 'Unconfirmed'.

Once the transaction has been added to the Bitcoin blockchain and confirmed multiple times, it will show a green tick mark beside it to show it's a successful transaction.

7

Setting up an Ethereum wallet.

Set up and use a personal
Ethereum wallet.

Note: Remember, security first. Do you have an anti-virus and anti-malware program installed?

If you're not going to be using a hardware wallet, the easiest and most convenient option for storing your Ethereum coins is provided by MyEtherWallet (which can store any coin or token on the Ethereum blockchain, including Ether).

Go to <https://myetherwallet.com>

Note: Because MyEtherWallet is so popular, it's also a target for scammers, who have created many fake versions of the site to fool people into thinking they're on the real thing.

People who mistakingly use a fake site to log into their wallet expose their details and can have their coins stolen.

NEVER click a web link that says it's taking you to MyEtherWallet.

ALWAYS double check that you see the padlock and ‘Secure’ text in your Chrome browser **AND** that the URL is correct:

HTTPS://MYETHERWALLET.COM

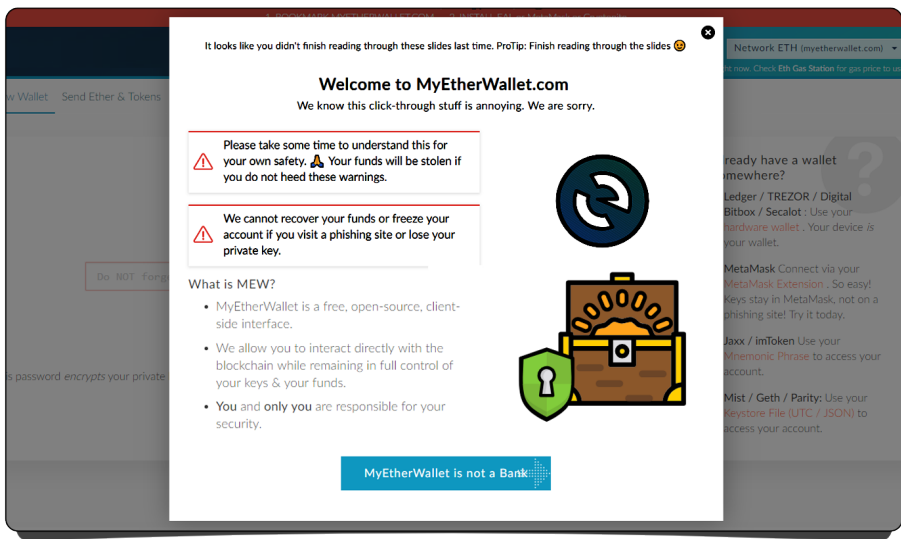
■ MetaMask for security

It’s also a great idea to install the MetaMask Chrome extension, which provides some protection again **phishing** by warning you if it suspects a site is compromised.

There is a link to download it from the official site:

Phishing | An attacker pretends to be a reputable entity or person to steal your login or personal details.

<https://metamask.io>



■ Before you can access MyEtherWallet, you’ll be presented with some informational slides that give you a thorough explanation of what MyEtherWallet does, what it doesn’t, good security practices, etc.

It’s worth taking the time to read them.

Once you're done, click the 'X' on the top right corner to access the site.

3.21.17 English Gas Price: 21 Gwei
The network is really

New Wallet Send Ether & Tokens Swap Send Offline Contracts ENS DomainSale Check TX Status View Wallet Info Help

Create New Wallet

Enter a password

Do NOT forget to save this!

Create New Wallet

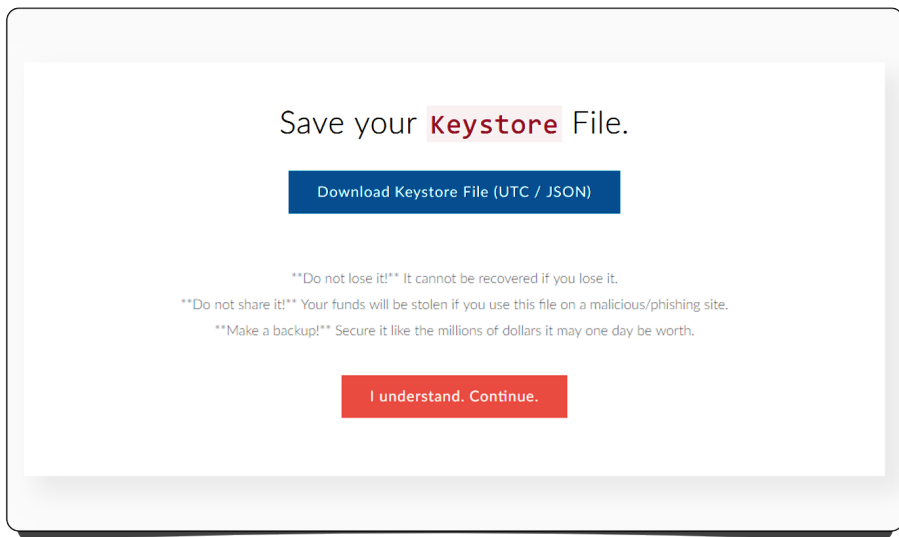
This password *encrypts* your private key. This does not act as a seed to generate your keys. You will need this password + your private key to unlock your wallet.

[How to Create a Wallet](#) · [Getting Started](#)

■ Enter a password that would be hard to guess (but that you won't forget!).

Note: if you forget this password, you might lose access to your coins.

Press 'Create New Wallet'.



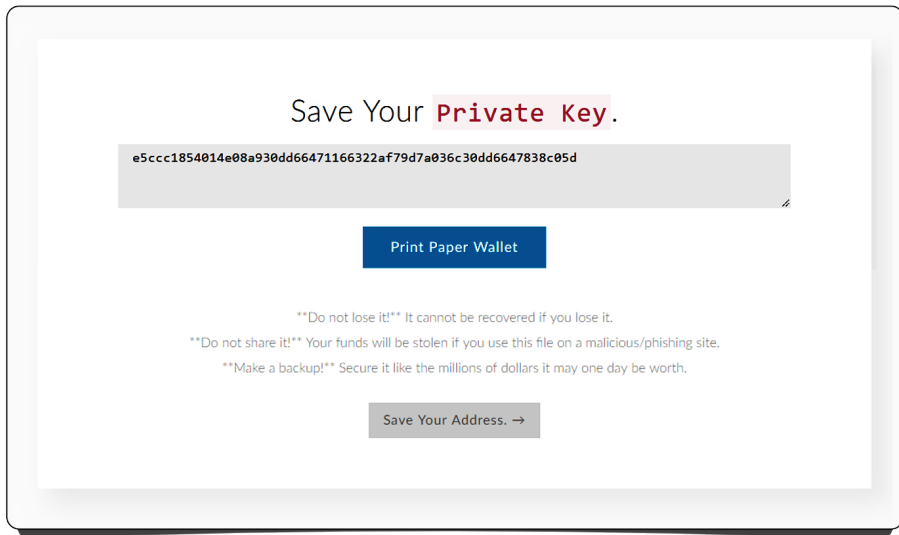
■ Click ‘Download Keystore File’

Be sure to read and understand the warnings that MyEtherWallet shows you.

It’s **vitaly important** that you back this file up somewhere safe (think multiple external hard drives and/or USB drives that you put somewhere very safe and private).

Note: If someone gets hold of this file, he can open your wallet and take your coins. **Keep it safe!**

Once you’re done, click ‘I understand. Continue.’



- Now you will be given a powerful unencrypted private key to your wallet.

Note: Never give your private key to anyone. If you do, someone could open your wallet and take your coins.

Consider printing your private key and storing it somewhere safe—and then deleting all references to it from your computer. Why? Because sometime in the future you might get a virus or malware, or visit a website with an ad that has malicious code.

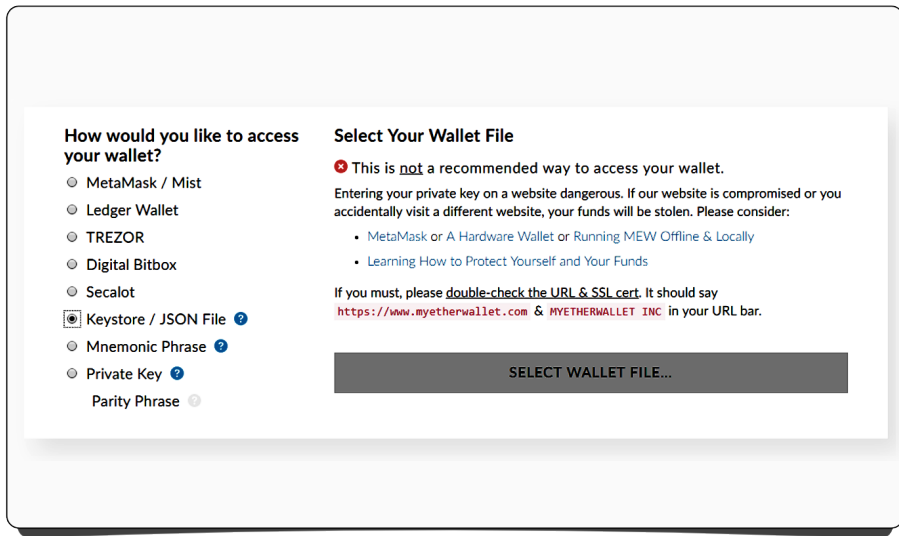
These things will target a private key, as it's an easy way to open your wallet and steal your coins.

So why print your private key at all, if it's so insecure? Because it's your last resort. If you lose your keystore file (say, if your computer gets wiped or damaged) or if you forget your password, as a final recourse you can use your unencrypted private key to access your coins.

- There is also an option to print a paper wallet (which displays everything you'd need to access your wallet).

If you choose to print this, treat it just like the keystore file you just downloaded—keep it hidden and keep it safe.

Click ‘Save your address.’



■ Now you’re going to open your new wallet.

Select the ‘Keystore File’ option.

MyEtherWallet will tell you this is not a recommended way to access your wallet. MyEtherWallet recommends:

■ A Ledger hardware wallet.

Sounds good to me.

■ A Trezor hardware wallet.

Good too.

■ The MetaMask Chrome app.

MetaMask is a useful app to help you avoid phishing scams, but in

my and even the developers, opinion (see the first response in this Reddit conversation: <https://getcrypto.info/metamask>), MetaMask isn't a suitable option for storing cryptocurrency long term.

■ Mist.

Mist is the official Ethereum wallet, but in my opinion it makes the whole process of storing and sending Ether and Ethereum tokens unnecessarily complicated. To work, it also requires downloading the entire Ethereum blockchain—and that's already over a terabyte in size.

Remember: You don't have to agree with my assessment and can use one of the other options MyEtherWallet suggests.

If you want to use MetaMask, it can be found here:

<https://metamask.io>

If you want to use Mist, a download link to the latest version can be found here:

<https://www.ethereum.org>

■ Now, if you're happy to keep using MyEtherWallet to store your Ether, click 'Select wallet file'.

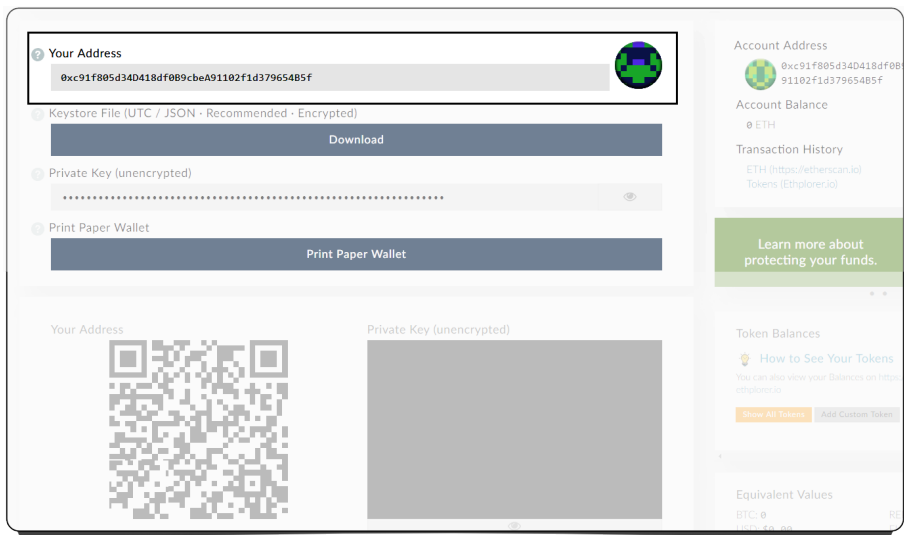
Find your keystore file and upload it.

Enter your password and press 'Unlock'.

Once you're done, scroll down the page to see your opened wallet.

Coins v tokens | In your research you will come across people referring to some cryptocurrencies as tokens. The difference between coins and tokens is that coins exist on their own, dedicated blockchain. For example, Bitcoin exists on the Bitcoin blockchain, and Ether exists on the Ethereum blockchain.

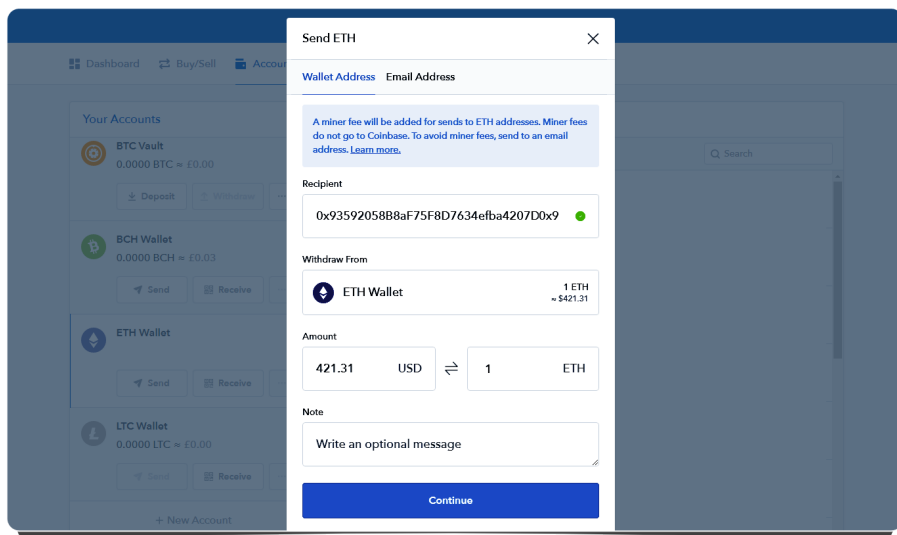
Tokens, meanwhile, exist *on top of another* blockchain. So for example, the tokens Aeternity and Loopring exist on top of the Ethereum blockchain.



■ You will see a long string of letters and numbers labeled ‘Your Address’.

This is your personal wallet address, and it’s where you’re going to be sending your Ether.

Select this address and copy it to your computer memory, since you’re going to need it soon.



■ Now, go to Coinbase and log in.

Click 'Accounts' from the top menu, then find your Ethereum wallet listed on the left.

Click 'Send'.

In the 'Recipient' box, paste your personal wallet address from MyEtherWallet.

In 'Amount', type how much Ether you wish to send. There is a 'use max' option if you wish to send everything, but for your first transaction **I strongly suggest** you send only a small amount, to get comfortable with the whole process.

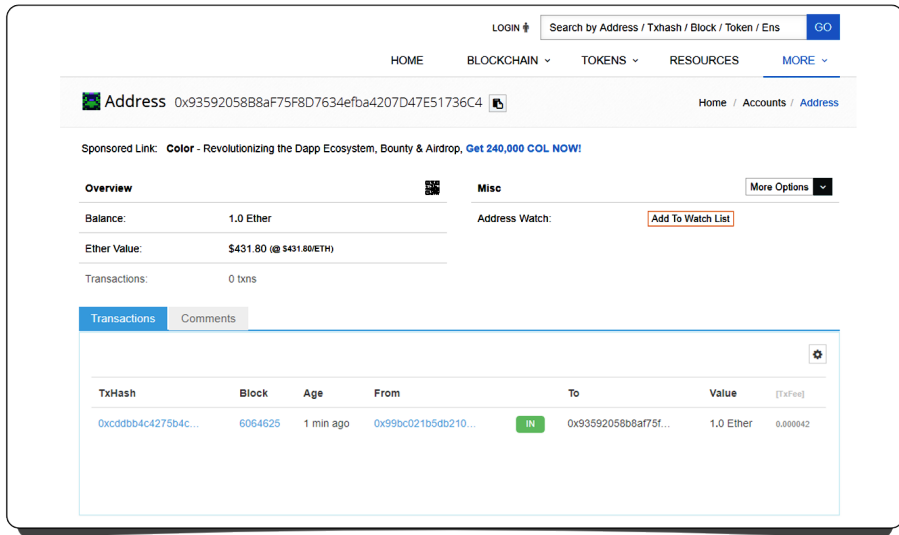
Note: Coinbase will charge you a 'miner fee', which pays for your transaction to be added to the Ethereum blockchain.

Click 'Continue'.

Coinbase may ask you to confirm the transaction with your

password, phone or Authy app.

Follow the instructions until it confirms the Ether are sent.



■ After a few minutes your Ethereum should be in your personal wallet.

However, MyEtherWallet doesn't automatically refresh to show your new balance.

Instead of logging out of and then back into your wallet to see your new coins, it's safer and quicker to view your wallet balance using a website called Etherscan.

In Chrome, type:

<https://etherscan.io/address/>

Paste your wallet address at the end of the URL. So for example, to see the wallet set up in this guide, you'd go to:

<https://etherscan.io/address/0x93592058B8aF75F8D7634efba4207D47E51736C4>

Etherscan doesn't interact with your wallet at all—you're only viewing it, making it a super safe way to see your current balance.

The screenshot shows the Etherscan website's 'Send Ether & Tokens' page. The top navigation bar includes links for 'New Wallet', 'Send Ether & Tokens' (which is active), 'Swap', 'Send Offline', 'Contracts', 'ENS', 'DomainSale', 'Check TX Status', 'View Wallet Info', and 'Help'. The main heading is '+ Send Ether & Tokens'. On the left, there are three input fields: 'To Address' with the value '0xdE2C70FF390F5d68A3E708d62834F45218264008', 'Amount to Send' with '10' and a dropdown for 'ETH', and 'Gas Limit' with '21000'. Below these is a '+Advanced: Add Data' link and a 'Generate Transaction' button. On the right, the 'Account Address' is '0xc91f805d340418df009cbeA91102f1d37965485f'. The 'Account Balance' is '10 ETH'. The 'Transaction History' shows 'ETH (https://etherscan.io)' and 'Tokens (Ethplorer.io)'. At the bottom right, there is a 'Token Balances' section with a link 'How to See Your Tokens' and a note that balances can also be viewed on 'https://etherscan.io or ethplorer.io'.

■ In the future you may want to move your Ether. Great news—it's easy.

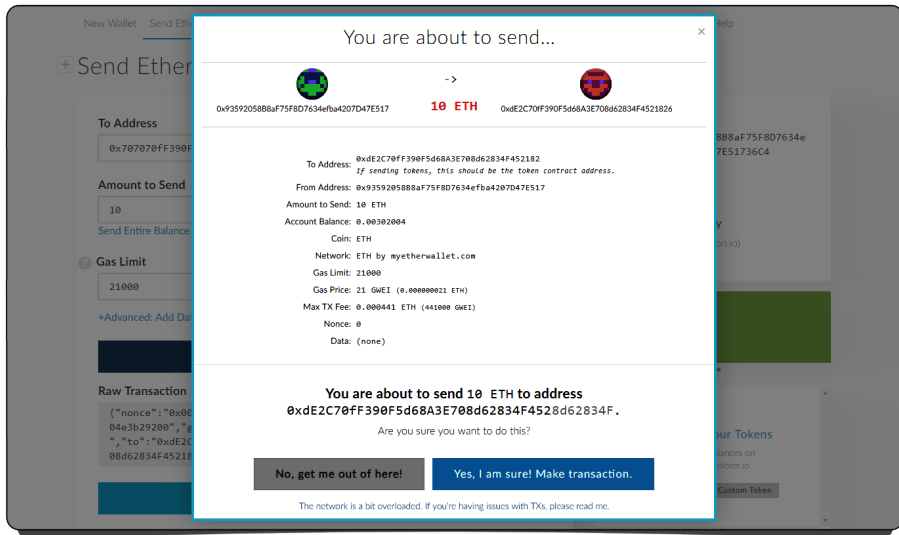
Go to MyEtherWallet.com—*again always double checking the domain name is correct and Chrome says the site is secure!*

Press 'send ether & tokens', then open your wallet using your keystore file and password.

In the 'To address,' insert the wallet address you're sending the Ether to.

Now write in how many coins you'd like to send (or press 'send entire balance' to send them all).

Press 'Generate transaction.'



- The wallet will create the transaction.

Double check you entered the wallet address and Ether (ETH) amount correctly and then press 'Send transaction'.


On the following pop-up, click 'Yes, I am sure! Make transaction'.

[New Wallet](#) [Send Ether & Tokens](#) [Swap](#) [Send Offline](#) [Contracts](#) [ENS](#) [DomainSale](#) [Check TX Status](#) [View Wallet Info](#) [Help](#)

+ Send Ether & Tokens

To Address

0xdE2C70FF390F5d68A3E708d62834F45218264008



Amount to Send

10

ETH ▾

[Send Entire Balance](#)


Gas Limit

21000

[+Advanced: Add Data](#)

Generate Transaction

Account Address


 0xc91f805d340418df089cbeA91102f1d37965485f

Account Balance

10 ETH


Transaction History

[ETH \(https://etherscan.io\)](https://etherscan.io)
[Tokens \(Ethplorer.io\)](#)

 Your TX has been broadcast to the network. This does not mean it has been mined & sent. During times of extreme volume, it may take 3+ hours to send. 1) Check your TX below. 2) If it is pending for hours or disappears, use the Check TX Status Page to replace. 3) Use ETH Gas Station to see what gas price is optimal. 4) Save your TX Hash in case you need it later:
0x5cb96a7e2c358ec805271c92b9484fdc4191940cff3d08a70a4995f7d

Verify Transaction

Check TX Status

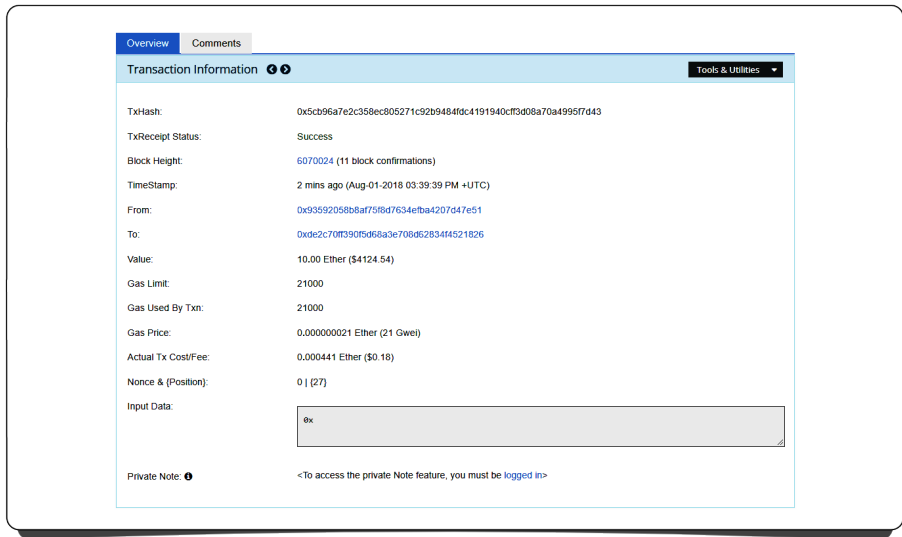


■ Your transaction has sent.

In the green box that appears, click ‘Verify Transaction’.

This will take you to a screen where you can see your transaction on the Ethereum blockchain.

78



■ As you can see in the image above, this transaction has already gotten 1 block confirmation. It's on its way!

If your transaction fails with an 'out of gas error,' repeat the send process but increase the gas price (try doubling it).

8

Finding more coins to invest in.

Where to discover new altcoins for potential investment.

When Bitcoin was invented back in 2009, the first people who took the plunge and invested ‘real-world money’ into this bizarre, ‘imaginary’ currency were ridiculed by mainstream investors. It seemed crazy to sink money into an unregulated market dependent on an unproven technology.

Those early Bitcoin investors refused to follow the crowd, being too intrigued by the opportunities this brand-new type of asset might open up to care too much that their investment might evaporate to nothing.

And you know what? It worked out for them. If you’d bought \$100 worth of Bitcoin in 2011, it would be worth millions at today’s prices. Not a bad return for simply holding an asset for a few years.

Of course, Bitcoin was an unusual case, and one unlikely to repeat itself now that crypto has become more mainstream.

Except...

A \$100 investment in the cryptocurrency Ripple bought in March 2017 would be worth, in August 2018, \$4,500. If you'd had the good fortune to sell at the price peak of the coin in January 2018, it would have been for a cool \$37,500. From a \$100 investment.

It's fun and a little frustrating to look at these types of price rises in retrospect, thinking of how lucky those investors were to pick the right coin.

But luck is random. You certainly don't want to rely on it. Instead, you want to be smart and do thorough research on any coin you think might make for a sound investment.

And the first step of doing research is ... finding a coin to do research on.

Here are some of my go-to websites for finding out which cryptocurrencies already exist and which are about to launch.

■ Twitter

Influencers on Twitter might have a bias towards or against specific coins, either because they're invested in them or in their competitors, but they can still be useful for hearing about news and rumors involving old and new coins alike.

Just exercise healthy skepticism with everything you read on Twitter, as anyone and everyone can post whatever he or she likes on the platform.

My favorites:

- <https://twitter.com/maxkeiser>
- <https://twitter.com/aantonop>
- <https://twitter.com/lopp>
- <https://twitter.com/tracemayer>

■ Reddit

Most coins have their own dedicated subreddits on this popular forum, in addition to the discussion areas that focus on general cryptocurrency news and events, including launches of new coins.

My favorites:

- <https://www.reddit.com/r/cryptocurrency>
- <https://www.reddit.com/r/ethtrader>

■ Smaller exchanges

Compared with other exchanges, Coinbase lists very few coins. It's worth watching smaller exchanges that list new coins regularly, for example, Kucoin and Idex, and seeing which coins have a steady and growing volume, which may mean other investors are interested in the project.

My favorites:

- <https://idex.market>
- <https://www.kucoin.com>

■ Upcoming events

There are websites dedicated to listing upcoming events in the cryptocurrency space, and there are an awful lot of those events happening every single day.

Look far enough ahead and you might find something exciting scheduled that could bring attention to a specific crypto project.

My favorite:

- <https://coinmarketcal.com>

■ Email newsletters

Created by people who have a passion for cryptocurrency, newsletters are a great way of staying on top of the big news stories affecting crypto as a whole and sometimes specific to one coin.

My favorites:

- <https://getcrypto.info/cryptoam>
- <https://getcrypto.info/chainletter>

■ YouTube

Avoid the YouTubers who are only interested in pushing the projects they're personally invested in and you've found a way to keep up to date on news and upcoming events, in an easy to digest format perfect for our shrinking modern attention spans.

My favorites:

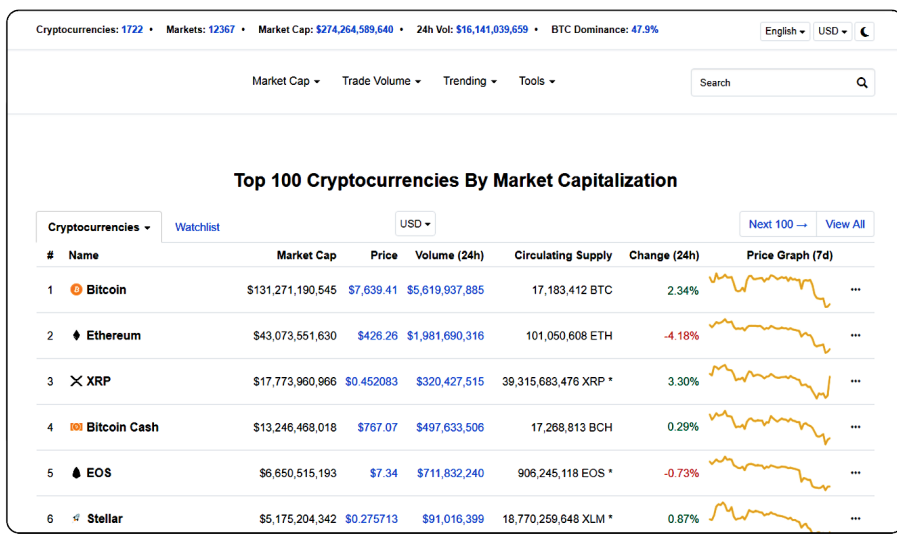
- <https://getcrypto.info/cryptodaily>
- <https://getcrypto.info/louisthomas>
- <https://getcrypto.info/crypt0>

■ CoinMarketCap

By far my favorite way to find new coins is using this fantastic and free resource:

- <https://CoinMarketCap.com>

This site collects all the important information about a coin and present it in an easy to browse, easy to understand format.



When you first visit the site, you'll be presented with the current top 100 cryptocurrencies, ranked by market capitalization.

Let's break each column down.

■ Market Cap

A common way of ranking the popularity and success of a cryptocurrency. Market capitalization is calculated by multiplying the price of a coin by its circulating supply.

Example:

Say there are currently 17,183,419 Bitcoin in circulation.

Say the current price of a single Bitcoin is \$7,639.41

$$17,183,419 \times \$7,639.41 = \$131,271,190,545$$

That makes \$131,271,190,545 the current market capitalization of Bitcoin.

■ Price

The average amount it would cost you to buy one coin of each cryptocurrency, calculated from pricing information collected from a wide range of cryptocurrency exchanges (such as Coinbase).

■ Volume (24h)

The total amount of trading done in one cryptocurrency over the past 24 hours.

Example:

Person A buys \$100 of Bitcoin from Person B

Person C sells \$150 of Bitcoin to person D

This creates a combined volume of \$250 in the Bitcoin market.

■ Circulating Supply

The total number of coins of each cryptocurrency that are available to buy and sell.

■ Change (24h)

The amount that a cryptocurrency's price has gone up or down in the past 24 hours.

Example:

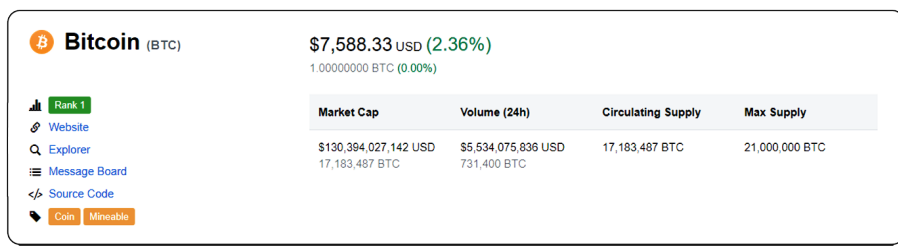
If the price of one coin of a cryptocurrency rises from \$100 to \$110 in 24 hours, that's recorded as a 10% change.

■ Price Graph (7d)

This gives you a quick visual indication of how the price of a coin has moved over the past week. A line moving up means the price

has gone up and the line moving down means the price has gone down.

Now click 'Bitcoin' so you can see more detailed information about that particular cryptocurrency.



This screen provides a huge amount of data that's valuable when researching coins.

■ Logo, Name and Abbreviation

The branding of a coin is important. Here you can see the official logo for the coin, its name and the unique abbreviation that the coin trades under. In this case Bitcoin trades as BTC.

The abbreviation for a coin may not correspond to its name.

Example:

The cryptocurrency Ripple's abbreviation is XRP.

■ Rank

This tells us how the coin ranks in popularity, based on market capitalization.

As you can see, Bitcoin ranks number 1. At the time of this writing, CoinMarketCap lists over 1,900 coins.

■ Website

Click this link to go to the official website of the coin.

■ Explorer

This link gives you a way to explore the blockchain of this coin.

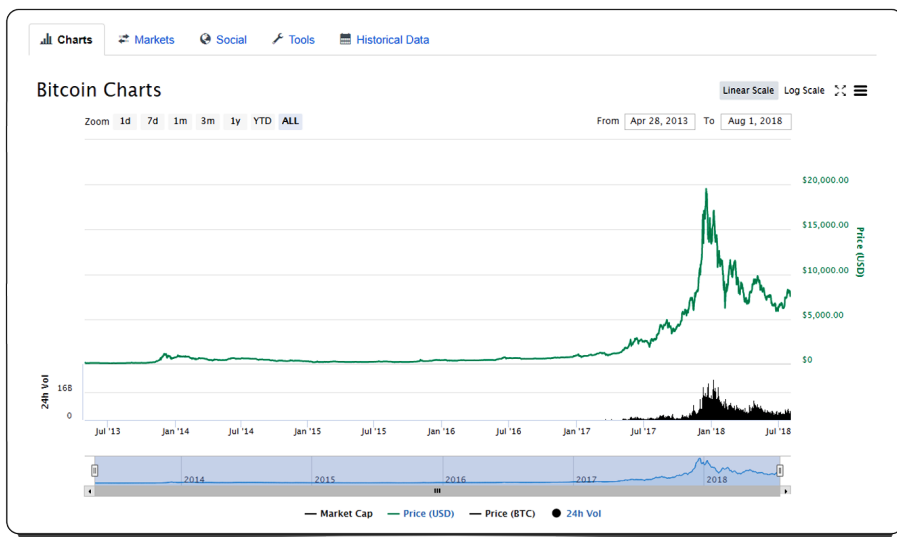
This allows you to view stats on a blockchain, such as its transactions, number of wallets, etc.

■ Message Board

If the coin has an official, or unofficial but popular, forum, this is where you'll find it. Boards are a quick way of establishing if a coin has an active community.

■ Source Code

If the coin is an open-source project, you can view the actual code that powers it here, usually on the website GitHub.



■ Charts

The first tab at the bottom of the page gives us a chart that plots important information about a coin.

Using the options at the bottom of the chart, you can show or hide the market capitalization of the coin, the price in US dollars, the price in Bitcoin (if it's an altcoin) and the 24-hour volume of the coin.

You can also use the sliders or date input boxes to focus on any time period that might interest you.

Charts

Markets

Social

Tools

Historical Data

Bitcoin Markets

Pair: All

Category: All

Fee Type: All

USD

#	Source	Pair	Volume (24h)	Price	Volume (%)	Category	Fee Type	Updated
1	BitForex	BTC/USD	** \$6,819,827,343	\$7,568.64	33.60%	Spot	Unknown	Recently
2	BitMEX	BTC/USD	** \$6,819,010,898	* \$7,560.00	33.59%	Derivatives	No Fees	Recently
3	Binance	BTC/USD	\$425,263,297	\$7,545.09	2.10%	Spot	Percentage	Recently
4	Bitfinex	BTC/USD	\$384,016,905	\$7,570.30	1.89%	Spot	Percentage	Recently
5	OKEx	BTC/USD	\$322,192,038	\$7,543.71	1.59%	Spot	Percentage	Recently
6	Huobi	BTC/USD	\$287,698,486	\$7,546.81	1.42%	Spot	Percentage	Recently
7	Quoine	BTC/JPY	** \$247,991,531	\$7,516.20	1.22%	Spot	No Fees	Recently
8	FCoin	BTC/USD	** \$238,411,346	\$7,543.92	1.17%	Spot	Transaction Mining	Recently
9	CoinEx	BTC/USD	** \$158,617,820	\$7,540.21	0.78%	Spot	Transaction Mining	Recently
10	CoinBene	BTC/USD	** \$155,045,445	\$7,548.98	0.76%	Spot	Unknown	Recently
11	Zaif	BTC/JPY	** \$130,075,709	\$7,526.53	0.64%	Spot	No Fees	Recently
12	Fisco	BTC/JPY	** \$130,075,363	\$7,526.53	0.64%	Spot	No Fees	Recently
13	DigiFinex	BTC/USD	\$122,473,704	\$8,025.46	0.60%	Spot	Percentage	Recently
14	Coinbase Pro	BTC/USD	\$118,943,777	\$7,549.11	0.59%	Spot	Percentage	Recently
15	Bitstamp	BTC/USD	\$116,684,700	\$7,565.58	0.57%	Spot	Percentage	Recently
16	bitFlyer	BTC/JPY	\$78,289,466	\$7,526.32	0.39%	Spot	Percentage	Recently

■ Markets

Markets gives us more specific information on which exchanges sell a coin and the price the coin is fetching on each exchange at that very moment.

Volume (24h) tells us how much of the overall trading volume for a coin each exchange accounts for. You generally want to buy coins on the exchanges that have the largest volume so that you get a better price.

Note: Volume can be manipulated to make an exchange look more popular than it really is, and in the image above the volume for the exchanges BitForex and BitMEX look very high—and suspect.

CoinMarketCap let's us know that they are excluding those exchanges from their overall calculations by placing two stars (**) beside the volume data.

■ Social

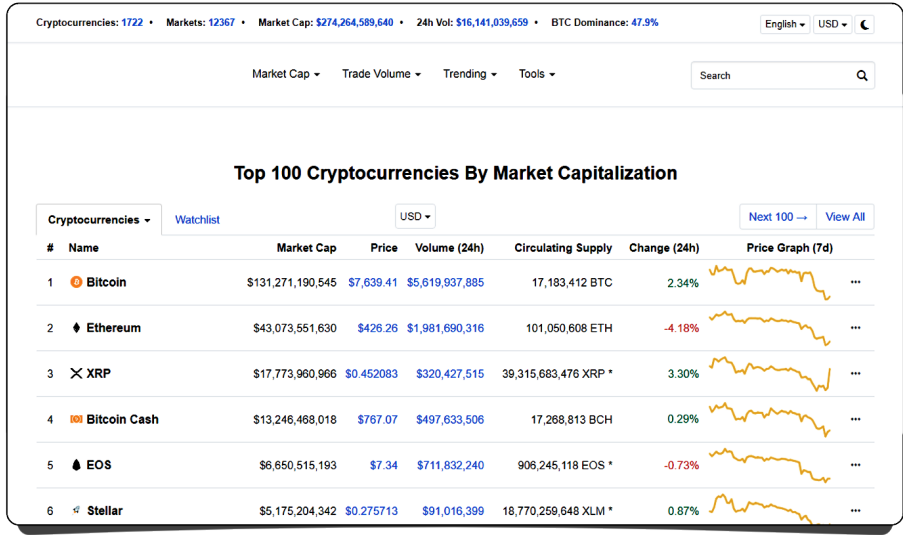
The social tab links to the official Twitter account and Reddit discussion board for a coin, if they exist.

■ Tools

The code on this page allows you to post a price widget for a coin on your own website, powered by CoinMarketCap.

■ Historical Data

This tab lists historical trading data for a coin. For each date, you can see the price the coin began trading at that day, how high and low the price went, and the total trading volume and market capitalization for that day.



■ The Top 100

Go back to the homepage of CoinMarketCap.

You're back at the list of the top 100 coins. These coins are the most popular with investors, with the top 10 alone representing a huge

share of the value and volume in the cryptocurrency market.

Some investors never look beyond these top cryptocurrencies, assuming it's safer to keep their money in coins that have already grown in value and popularity.

This is a perfectly fine strategy if you want to play cautious in a volatile market.

But if you're investing in cryptocurrencies because you're chasing 10x, 20x or even 100x returns, you're probably going to have to look further down the CoinMarketCap list than the top 10, past even the top 50, to find coins that haven't yet peaked in price or found popularity.

■ It might seem obvious—but why does the price of a cryptocurrency change?

To spot a coin that might be due for a rise or fall in price, it's important to understand *why* prices rise and fall.

This isn't a comprehensive list—many, many factors can affect the price of a coin, but they do include:

- A news story may have been published. It could be news of a new partnership, a new hire or a press release. Or it could be a report on the shady past of the creator of a coin, a critique of its business plan or news of a rival coin launching.
- The coin may have been added to a new exchange; this type of news often attracts short-term investors. On the other hand, the coin may have had the misfortune of being delisted from an exchange—not a good sign.
- A celebrity or an influencer may have promoted a coin to his or her social media followers.
- A 'pump and dump' group might be buying large amounts of

a cryptocurrency in the hope of creating buzz and excitement, causing other investors to jump in and buy more. This causes the price to rise further, and the 'pump and dump' group can then sell its coins for a quick profit.

- There may be upcoming good or bad news, and insiders are trading on the knowledge. This is illegal in regulated markets, but in the wild west of crypto...

- A rumor may be circulating in social media. It could point to good or bad news. It could be real or fake.

Some events affect the price of cryptocurrencies as a whole, causing a general rise or fall in the majority of coins, sometimes short term, sometimes not. Some recent examples:


















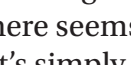

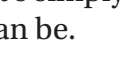
- A government announcing positive or negative regulations.

- A prominent exchange or wallet being hacked.

- Mainstream companies announcing an interest in cryptocurrency.

Price spikes and crashes can happen in moments. On one occasion Bitcoin rose \$1,000 in price in just 30 minutes!

When this kind of volatility occurs, it's best to switch off your emotions and avoid buying or selling in panic. Take a step back and assess the situation. See what might have caused the price to change, decide how this affects your investment, then plan and act accordingly.

#	Name	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7d)
81	 PIVX	\$105,791,863	\$1.86	\$769,400	56,781,166 PIVX *	-1.57%	
82	 Dentacoin	\$104,948,621	\$0.000323	\$23,349	325,226,613,094 DCN *	-5.41%	
83	 ReddCoin	\$102,809,690	\$0.003569	\$1,944,550	28,808,713,174 RDD *	-5.39%	
84	 Ark	\$101,282,035	\$0.971836	\$1,863,641	104,217,244 ARK *	-9.86%	
85	 Kyber Network	\$101,151,468	\$0.754115	\$15,648,290	134,132,697 KNC *	-6.41%	
86	 ChainLink	\$100,475,847	\$0.287074	\$2,144,119	350,000,000 LINK *	5.09%	
87	 Polymath	\$100,205,729	\$0.362512	\$17,047,805	276,420,107 POLY *	-10.98%	
88	 Power Ledger	\$100,196,485	\$0.268080	\$5,913,458	373,755,607 POWR *	-4.56%	
89	 Loom Network	\$97,722,566	\$0.166118	\$2,408,289	588,273,752 LOOM *	-0.79%	
90	 Dropil	\$97,122,435	\$0.004766	\$201,527	20,380,087,766 DROP *	-3.95%	

■ As I'm writing this, the crypto market is having something of a down day, with prices dropping across the board. There seems to be no specific news or event that's prompted it—it's simply a perfect example of how unpredictable this market can be.

It does, however, provide an opportunity to gauge some market sentiment. If the majority of cryptocurrencies are down in price, you can have a look at which coins are bucking the trend and going up—and try to work out why.

As I scroll down the CoinMarketCap top 100 list, I notice that a few coins have increased in price today.

The coin with the highest price increase is called Chainlink (LINK). Its market capitalization ranks it at number 86, and for some reason it's showing a price increase of 5%.

This coin seems like a good test subject for in-depth research to see what's going on, and if its recent market-bucking behavior marks it out as having investment potential.

Research in action.

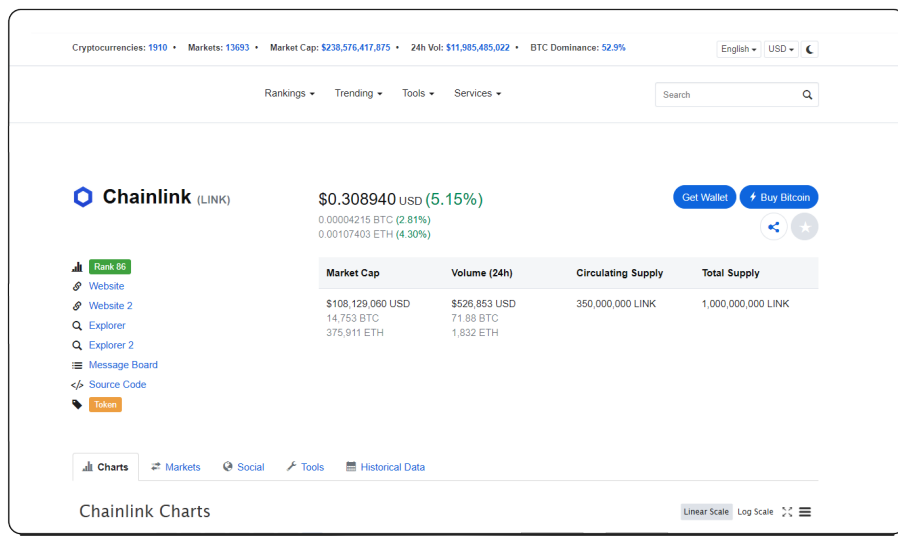
A real-world investigation
of a potential altcoin investment.

Make no mistake—researching a cryptocurrency can be a time-consuming process. More than once, I’ve found myself spending a whole day researching a single coin, trying to work out if it might be worth an investment.

I wouldn’t buy a stock of a company I’d never heard of, with no idea of what the company produces and how it intends to grow in value. So I wouldn’t do the same with a cryptocurrency.

In this chapter I’ll outline how I personally research a coin—what I do and why I do it. Then I’ll apply that process to Chainlink (LINK) and see what real-life results I get.

■ CoinMarketCap analysis



First, I'll find the coin on CoinMarketCap and click through to its dedicated page.

From there, I'll click the 'website' link to be taken to the official site of the coin.

There are three things I look for straight away, and if they're not present I'll immediately lose interest—since they're good indicators that a project is being managed professionally.

❶ Upon first viewing, does the site, briefly and succinctly, describe the project?

Potential investors are impatient and fickle. They should have important information laid out in front of them as soon they visit the project's site.

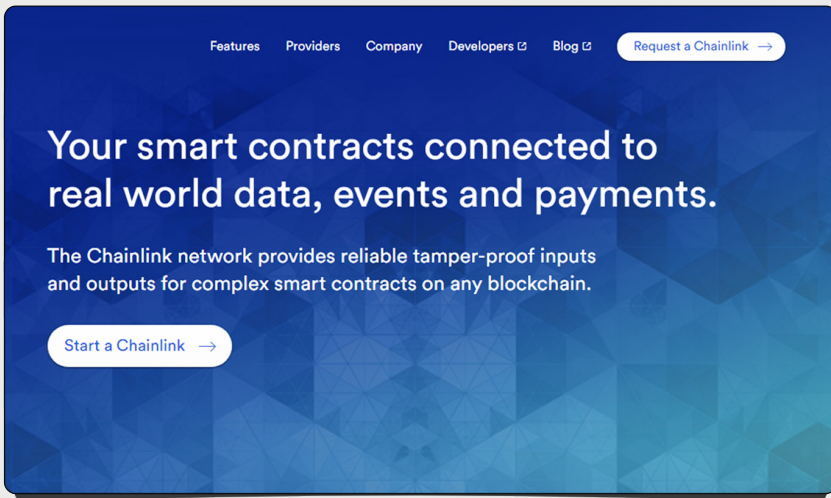
❷ Is there a link to download the project's white paper?

A white paper is a thorough guide to the project and should tell us exactly what the company is setting out to achieve and how it plans

to go about it.

❸ Does the white paper seem professionally produced, does the project it lays out make sense and seem interesting, and does it explain the utility of the project's coin or token?

If a project doesn't make a stunning impression in a document that represents a company's vision then I'll lose confidence the business can follow through on its goals.



It appears Chainlink has two official sites. One is for 'Smart Contract', which is the company behind the coin. The other site is dedicated to the Chainlink project itself.

❶ When I visit both sites, the first thing I see is the project quickly and neatly explained—good. You'd be surprised how many projects neglect to lay out their primary objectives for a casual visitor.

❷ The link to the white paper wasn't immediately obvious, but at least there was one.

3 I found the idea behind Chainlink to be interesting, one that might actually help the blockchain industry grow as a whole. The white paper is in-depth about the need for the project, how Chainlink intends to implement it, and the utility of the token—from the parts I understood!

I'll be honest—and I do this frequently while researching—I did a web search for a 'Chainlink White Paper Review' and read some breakdowns of the project and the token's utility that employ less technical language.

There are plenty of crypto coins out there with dubious objectives. If the use case of a coin doesn't make sense in your head or just seems like an unneeded or silly idea, close that browser window and don't look back.

From my research, I discovered that the Chainlink token is designed to be used for payment when using the Chainlink network, so if the popularity of the system grows, so might the price of the token.

This is all pure speculation, of course. The project could become popular and the token price might barely rise.

The project passed my first test and, perhaps more important, piqued my interest.

Now I'll ask myself some basic questions regarding its website.

These questions might seem petty or obvious, but their answers reveal a lot about the project's attention to detail and professionalism.

4 Is the web design, logo and branding professionally produced?

I like to see some time and money spent on branding—bad design is an instant turnoff.

5 Are there spelling mistakes?

If a site has been rushed without proofing, it can say a lot about the professionalism of the people behind the project.

6 Is English obviously the author's first language?

If the project claims to be based in an English-speaking country but there are basic language errors in the text—they might be lying.

7 Is there a blog and has it been updated recently?

I want to stay updated about a project's activities if I invest in it. If they can't be bothered to update their own blog, it will say something about how much importance they place on communicating with the community surrounding the coin.

8 Is there a way to contact the developers?

I want to know that the people behind the project are real—and available to the public.

9 Is there an ability to sign up to a newsletter?

Keeping users updated is important for a growing community.

My impressions:

4 The layout is clean and simple, and the logo and branding are professional and consistent. The graphics are a little busy—but it's a complex project to explain so I'll give the company some leeway.

5 There are no obvious spelling mistakes.

6 The text appears to be written by a native English speaker.

7 There is a blog, but it hasn't been updated in months, which is disappointing.

8 There are email links to contact the developers.

9 There is an email subscription form. This doesn't tell me that Chainlink *does* send newsletters, but it's at least a good sign.

So far, so good. No red flags that make me question whether the project is badly managed or an outright scam. And there have been plenty of scams in crypto—check out this news article to see for yourself:

<https://getcrypto.info/scam>

Also take the time out to search for other news stories on scam crypto projects, since learning from those will make it more likely you'll spot scams in the future.

So let's go back to CoinMarketCap and continue the research.

This time I'll click 'Explorer', which will allow me to view the transactions and wallets of the coin.

10 Is the coin on its own blockchain? Or is it a token on another blockchain?

If the coin has its own blockchain, it's more likely to be a currency rather than a utility token, and a more major undertaking. A new blockchain requires *a lot* of marketing and talented developers to achieve success.

A token exists on another cryptocurrency's blockchain. This implies that the coin is concerned with harnessing blockchain technology rather than reinventing it.



This tells me Chainlink is a token on a popular and actively developed blockchain, so no concerns there.

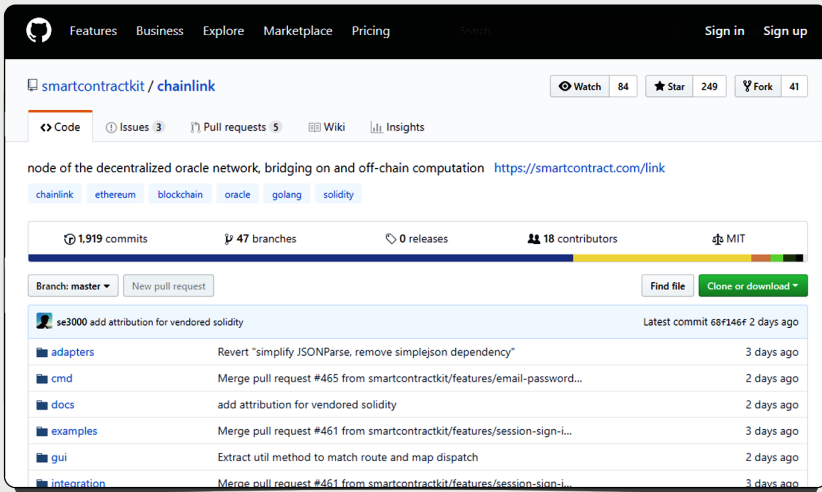
11 Is the code open source?

12 Is there recent activity to show the code is being actively worked on?

100

13 How many developers are working on the project?

Fewer developers can make for more nimble teams but can also lead to drawn-out development times and make a team's output more vulnerable if someone quits.



Clicking 'Source Code' has taken me to GitHub, which is where most open-source projects develop their code online.

11 Chainlink appears to be open source. Good.

12 By clicking on 'Commits', I can see that the code was updated only yesterday. The project is active.

13 There are 18 contributors listed to the project. Some may be full time, some part time, but it feels like a solid number.

If so inclined, I can view these developer profiles on GitHub and then search for them on the networking site LinkedIn. That makes it easy to view their employment history and achievements.

On CoinMarketCap I'll look over the price-history chart of the coin, market capitalization, volume and circulating and total supply.

❶❹ Does the capitalization of the coin look high or low?

Too high and it might have peaked in price already, so it might not be worth investing in. Too low and it means I could be missing something obvious that is scaring away other investors.

❶❺ Does the coin have significant volume in comparison to its market cap?

Personally, if I see a trading volume above 1% of the market cap of the coin, I feel comfortable that there's healthy trading of it.

❶❻ What is the total supply in comparison to the circulating supply?

If there is a huge total supply and a small circulating supply, that suggests to me that in the future a lot more coins could join the circulating supply—and cause the price per coin to drop.

❶❼ What has the price acted like since the coin was created?

Does it follow general market movements, or has it had break-outs? Does the price appear to be trending up, down or sideways?

❶❸ It's very difficult to know if Chainlink is over or under valued in an unpredictable market with unprecedented levels of speculation.

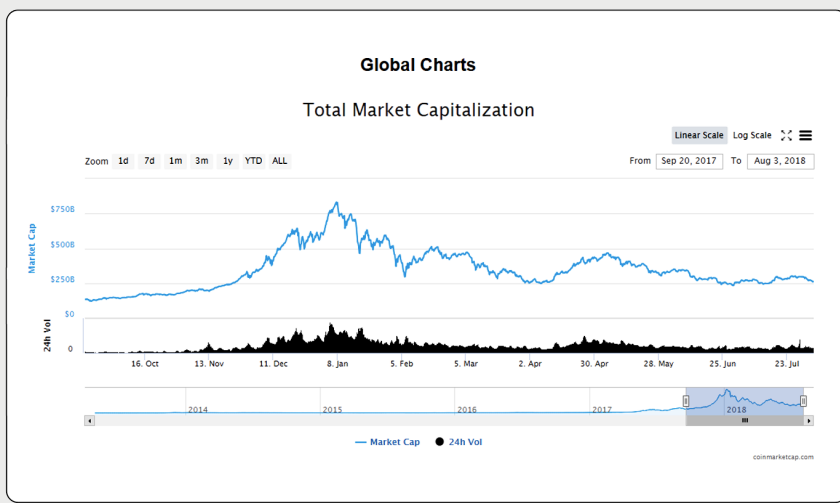
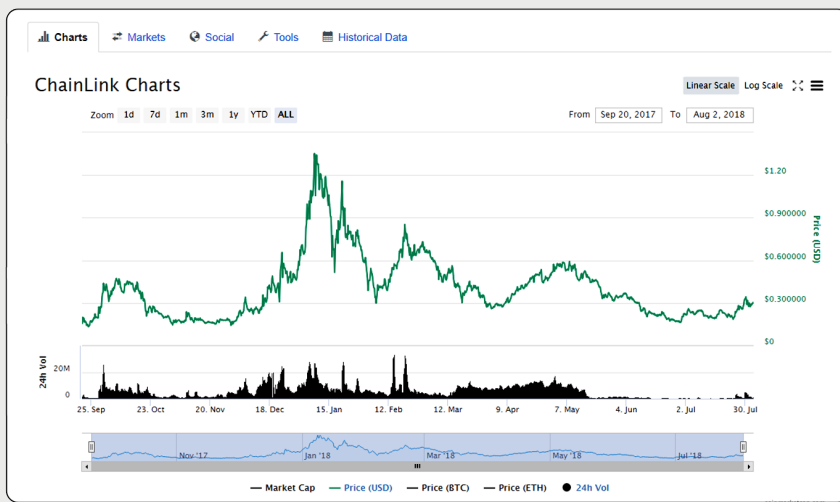
Invariably it comes down to your personal opinion as to whether you think a project is over, under or reasonably valued.

❶❺ At this time, Chainlink has a \$100 million market cap and a trading volume of \$1.8 million. That's almost 2% of market cap and fine with me.

16 The circulating supply of Chainlink is 350 million, with a total supply of 1 billion. Those 650 million coins could potentially be released into the market in the future and cause the price to drop. This concerns me.

By searching for ‘Chainlink circulating supply,’ I was able to discover where those remaining 650 millions coins were—they are still with the developers: 35% will be going to ‘Node Operators’ to help kick-start the projects ecosystem, and 30% has been held back to help fund further development of the project.

These seem like understandable and sensible decisions by the developers, but I’m still concerned about how the future release of these coins might affect price in the long-term.



17 I compared the market capitalization of Chainlink to the market capitalization of the crypto market as a whole. Across the same period, Chainlink has pretty much followed the peaks and troughs of the entire market.

However, Chainlink's price has been steadily rising over the past month, while the overall market has been flat. To me this suggests growing interest in the coin. Research can help you work out why.

Now let's find out who the people behind the project actually are.

If it's difficult to find out who's working on a project, it's a huge red flag. How can you know the project's creators and developers are qualified and trustworthy if you don't even know who they are?

❶❸ Is the team behind the project listed on the official site?

A list of their real, full names is a minimum requirement. You need to know they are real people unafraid to show they're involved with the project.

❶❹ Can I find the team members on LinkedIn?

It's not hard to create a fake LinkedIn profile, so it's important to also check that their profiles seem real, with multiple connections to other professionals in the field and so on.

❶❺ Do the team members look qualified to be successful at what they're setting out to achieve?

It's important to know if they have experience in relevant industries—and preferably in blockchain technology.

❶❻ Is there a good diversity in the numbers of developers, marketeers, financial officers, etc.?

A team of 30 developers might code a great product, but if they have no one qualified to market it, who's ever going to know about it?

❶❼ Do the the senior team members have an entrepreneurial backgrounds?

Knowing if they've started interesting and successful companies in the past, or if this is their first ever company, can give you some insight into the chances of the project succeeding.

Team & Advisors



Sergey Nazarov
CEO

Starting his career at FirstMark Capital, he left to join the cryptocurrency revolution in 2011. He firmly believes blockchain technology has the ability to change the way societies distribute wealth, enforce contracts, and share critical information.



Steve Ellis
CTO

Previously a software engineer and team lead at Pivotal Labs, where he worked on securing sensitive HIPAA compliant data and building scalable payments automation software. He's a big fan of Ethereum, Bitcoin and the decentralized future we're all building.



Dimitri Roche
Software Engineer

Dimitri was previously a software engineer at Pivotal Labs and McKinsey. Going on to lead engineering teams at large companies like Infogroup. He's excited about the positive societal impact of smart contracts, through the fairness and transparency they create.



Mark Oblad
Head of Operations

Mark began his career at Gunderson Dettmer, helping manage the growth of leading global hedge funds. Going on to build Valco, a technical leader in contracts automation software, where Mark saw the large potential of externally connected smart contracts.



Alex Kwiatkowski
Software Engineer

Alex is an experienced software engineer who previously worked at Pivotal Labs and Northpass, building secure and highly scalable enterprise software. He's excited about the positive impact that well made smart contracts will have on the world's global financial system.



John Barker
Software Engineer

After an academic career studying the security of the Tor network, John went on to lead development teams that have built some of the largest big data processing systems, while also making open-source contributions to leading projects like the Rust programming language.



Dan Kochis
Global Head of BD & Partnerships

Dan has a long history of closing deals that help companies reach their next stage of growth globally. He was integral to Alibaba's first US acquisition, various worldwide strategic partnerships worth over \$100MM in annual revenue, and corporate exits totaling over \$40M.



Adelyn Zhou
Director of Marketing

Adelyn is an experienced growth marketer, whose senior roles at her previous companies have led them to be acquired by industry leaders like Amazon. Adelyn is also an expert in Applied Artificial Intelligence, and believes smart contracts have a large contribution to make in that field.

18 The Chainlink team is listed, with full names, head shots and employment history. Good.

19 I had no problem finding multiple members of the team on LinkedIn. They often had over 500 connections to other members of the site, making it less likely they're fake.

I looked through the past employment history of a number of the team members and:

20 There's enough experience and qualifications listed in their LinkedIn profiles to give me confidence in their abilities.

21 There appears to be an almost 50/50 split between developers and other roles, which strikes me as a good balance.

22 The CEO Sergey Nazarov has founded two other companies in the past, as have a couple of the other staff.

Of course, a lot of this information can be difficult to verify, so we're taking some risk relying on it at face value. If

anything looks off—maybe a claim to have worked for lots of high-profile companies, or a claim to have a senior role at a suspiciously young age—then it might require further research to make sure the claims are real.

If I'm happy with the project's team, I'll then check to see if there are any advisors lending their help to the project.

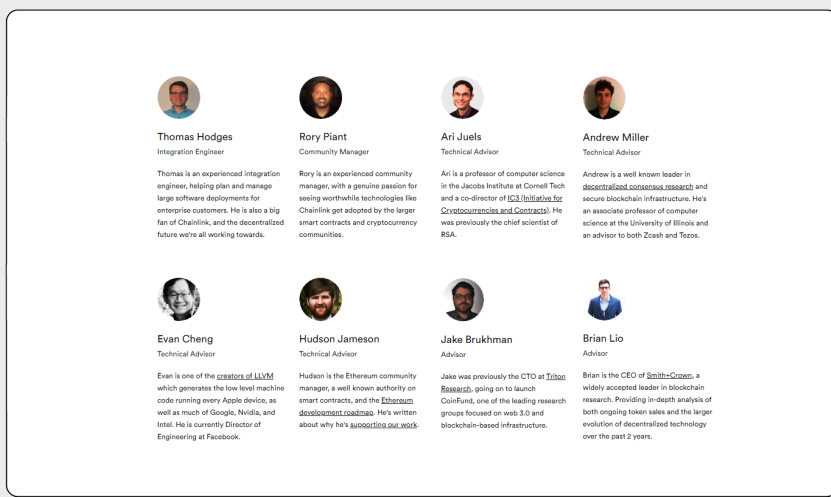
These are typically people highly regarded in their chosen fields who aren't working per se for the project but who the team can turn to for advice and support.

●²³ Does the team have advisors helping them on the project?

If so, who are they, and do they bring relevant experience to the table?

●²⁴ Is there evidence that the advisor is linked to the project outside of this website?

Scammy projects have been known to fake their professional relationships. If you ever find evidence that a team has faked a relationship with an advisor, you should discard it immediately.



23 Chainlink lists six people as advisors, and based on their current employment and employment histories, they seem to possess relevant experience and networking potential for the team.

24 Listed as an advisor is Evan Cheng, who is currently the director of engineering at Facebook. Faking an association with him would be pretty cheeky! So it should be easy to find out if the relationship is genuine. Let's do a quick internet search for 'Evan Cheng Chainlink'

Numerous websites report the news as fact, even if I can find no evidence from the man himself—but no refutation either.

Ari Juels is a professor of computer science at the Jacobs Institute at Cornell Tech. Again a quick search for 'Ari Juels Chainlink' doesn't bring up any official clarification from the man himself, though it does show us that he's worked extensively on smart contracts before.

Various news reports stating that he is on the advisory board for Chainlink give me confidence that his advisory is real.

Hudson Jameson was involved in the birth of Ethereum, the second-largest cryptocurrency by market cap. An impressive achievement. A quick search of ‘Hudson Jameson Chainlink’ brings up a blog post from the man himself about why he’s working with Chainlink.

Finally! We have confirmation from an advisor himself. That inclines me to believe the other big hitters are truly involved in the project too. All in all, an impressive list.

25 Does the project have partnerships with other companies listed on its website?

And are these partnerships relevant—do they bring any real benefit to the project?

Our Users and Industry Recognition



Gartner

Cornell



We're proud to be working with SWIFT on their own [SWIFT Smart Oracle](#). Allowing smart contracts on various networks to make payments, send governance instructions, and release collateral with over 11,000 banks.

25 Smartcontract, the company behind Chainlink, has been working with the global provider of secure financial messaging services, SWIFT, which is impressive.

Smartcontract has also received recognition by Gartner and

the World Economic Forum—but no partnership reports there.

Smartcontract purports to be partnered with Cornell's IC3 'to help launch the first Intel SGX secured link between smart contracts and external data.' This sounds relevant to what it's trying to achieve, so that partnership seems valid.

With some internet searching, I found very recent announcements of numerous new partnerships with other cryptocurrency projects, confirmed by both parties.

This helps ease my worries, as this implies these projects see value in Chainlink's use case and technologies.

26 Does the project have a roadmap for its future development?

A lack of this type of information makes for a more risky investment, without it we have no guidance for following the project's progress. How are we to know if the company is in front of or behind on its development schedule?

26 A roadmap for Chainlink's development does not appear to exist, at least not one for the general public to see, so we have no idea what the milestones for the project are or when they might be accomplished.

This is discouraging, as it means we're in the dark about Chainlink's development timetable.

27 What kind of competition does the project have?

If there are other companies working on a similar product, they might have better teams, more funding and better contacts. If the

competition looks to be working smarter or faster, then they might deserve investment instead.

27 A quick search for ‘Chainlink competitors’ (because using someone else’s research isn’t cheating—it’s saving time—as long as you stay aware that other’s findings may push their own agendas) turns up two major names: Oraclize and Mobius.

Researching Oraclize shows that it’s a centralized oracle service. Chainlink is a decentralized one. So in my opinion, they aren’t similar enough to be genuine competition.

Researching Mobius, I see that it’s a project aiming to make a platform on XLM to develop apps, and only a part of its platform is an oracle service. It’s possible competition, but from a project not as highly focused on one goal as Chainlink.

For the moment, neither other project feels like credible competition to me.

Is there an active community discussing the project and coin?

It’s important for a project to gain attention on social media and with news outlets. How else can casual investors learn about the coin?

28 What kind of results does a news search for the coin result in? Are there lots or few stories, and are they positive or negative?

If news outlets aren’t reporting on the project, then it could be flying under the radar (which might be great if you’ve discovered a slumbering giant of an investment), or it could mean that no one is really interested in reading and talking about it (obviously, not so good).

29 Are there active groups discussing Chainlink online?

Are people talking about the coin on Twitter, Facebook, Instagram, Reddit, Telegram and other platforms?

28 A news search for Chainlink brings up plenty of news stories about Chainlink's price action over the past month. There are also stories about new partnerships for the coin and what it means for each project.

So there does appear to be interest in the project with crypto news outlets, and the tone of the articles range from neutral to positive.

29 There are definitely active communities online discussing Chainlink.

I didn't find much talk on Facebook or Instagram about Chainlink, and there are only a few tweets each day with the hashtag #chainlink.

However, the two Chainlink Reddit forums have daily posts and discussions, and Chainlink's official Telegram is filled with (mostly) mature discussion on the technology and price action.

You can use the previous 29 steps as a springboard for further research about whether a project is worth your additional time and investment.

Of course, there are plenty of more ways to research a project and other metrics to consider when deciding to invest.

Your instincts and intuition will become honed as you gather information and experience on your own. Keep researching and learning, and you might just find the next 'big thing'.

Buying altcoins.

Using an exchange
to purchase altcoins.

Note: There are potential tax implications when it comes to exchanging one cryptocurrency for another. See chapter 13 for more details.

If you've done plenty of research and you've decided that you'd like to diversify your investment into one or more altcoins, then you're perfectly positioned to use your Bitcoin or Ethereum to get them.

The process involves moving your Bitcoin or Ethereum onto an exchange and then using your Bitcoin or Ethereum to buy your chosen altcoins.

But first, you need to know which exchange you can purchase your altcoins from, as different exchanges support different coins.

The way you do this is by finding the coin on CoinMarketCap.com, and then clicking the 'markets' tab.

<div> <div>Charts</div> <div>Markets</div> <div>Social</div> <div>Tools</div> <div>Historical Data</div> </div>								
ChainLink Markets				<div> <div>Pair: All</div> <div>Category: All</div> <div>Fee Type: All</div> <div>USD</div> </div>				
#	Source	Pair	Volume (24h)	Price	Volume (%)	Category	Fee Type	Updated
1	Binance	LINK/BTC	\$4,383,299	\$0.299555	66.64%	Spot	Percentage	Recently
2	Binance	LINK/ETH	\$973,009	\$0.299995	14.79%	Spot	Percentage	Recently
3	Huobi	LINK/BTC	\$713,368	\$0.301313	10.85%	Spot	Percentage	Recently
4	Huobi	LINK/ETH	\$257,474	\$0.302155	3.91%	Spot	Percentage	Recently
5	EtherDelta (ForkDelta)	LINK/ETH	\$61,936	\$0.297327	0.94%	Spot	Percentage	Recently
6	OKEx	LINK/BTC	\$54,009	\$0.306197	0.82%	Spot	Percentage	Recently
7	Mercatox	LINK/ETH	\$34,215	\$0.276913	0.52%	Spot	Percentage	Recently
8	OKEx	LINK/USDT	\$28,871	\$0.298816	0.44%	Spot	Percentage	Recently
9	Kyber Network	LINK/ETH	\$26,107	\$0.299012	0.40%	Spot	Percentage	Recently
10	Mercatox	LINK/BTC	\$24,855	\$0.292261	0.38%	Spot	Percentage	Recently
11	Gate.io	LINK/USDT	\$14,693	\$0.301718	0.22%	Spot	Percentage	Recently
12	Gate.io	LINK/ETH	\$2,581	\$0.302409	0.04%	Spot	Percentage	Recently
13	IDEX	LINK/ETH	\$1,571	\$0.317570	0.02%	Spot	Percentage	Recently
14	OKEx	LINK/ETH	\$1,083	\$0.309126	0.02%	Spot	Percentage	Recently
15	COSS	LINK/BTC	\$253	\$0.288094	0.00%	Spot	Percentage	Recently
16	COSS	LINK/ETH	\$58	\$0.292168	0.00%	Spot	Percentage	Recently

This will present you with a list of exchanges that deal in that altcoin.

As you can see in the above example, some of the exchanges deal with exchanging Bitcoin to Chainlink (LINK/BTC), some deal with exchanging Ether to Chainlink (LINK/ETH) and some allow both.

It's usually best to get your altcoin on the exchange with the highest volume, as the exchange with the most active trades and traders is where you're most likely to get the best value for your money.

In this instance, the exchange with the highest volume is called 'Binance'.

■ Before using an exchange, make sure you can trust it

Just as there are scammers out there trying to steal your coins, there are scammers running fraudulent exchanges with the same intention in mind.

Some exchanges have popped up out of nowhere and are run by anonymous groups of people, from unknown locations. If you send

your coins to an exchange like that and they steal them, there's little hope of getting them back.

The best way to make sure you're using a legitimate exchange is to do research:

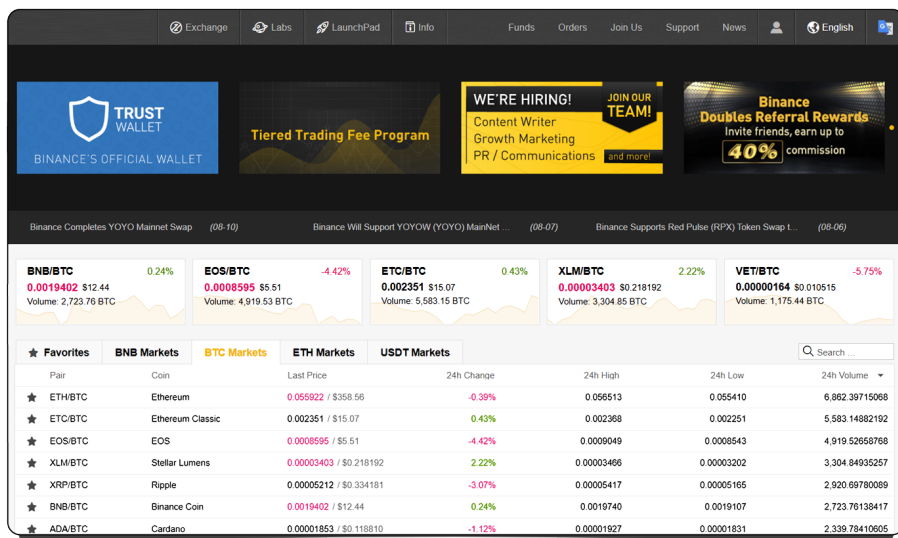
- Has the exchange been around a long time?
- Have legitimate news sources reported on it or interviewed the owners?
- Does searching for the exchange on social media reveal a large number of customer complaints or accusations?
- What have bloggers, Redditors and other forum users said about their experience of using it?

In this instance, an investigation of Binance reveals that it's been in business for over a year, the owner has been interviewed by mainstream news organizations numerous times, and the company's Twitter and Reddit are active and filled with genuine discourse, good and bad.

That would usually be enough evidence for me to use an exchange.

■ Signing up with Binance

Note: Signing up for and using a variety of exchanges follows a similar experience, so if you follow this guide to sign up and use Binance, it'll serve you well when you come to use other exchanges.

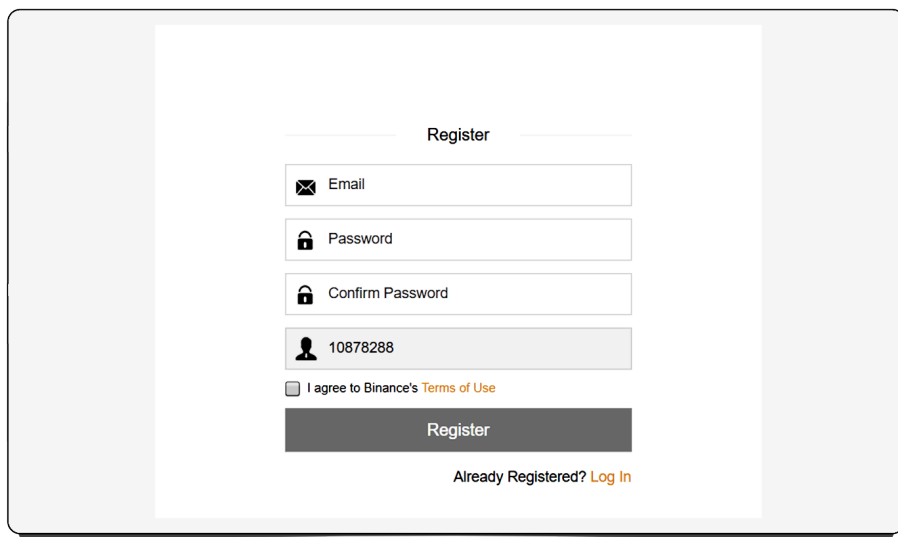


■ Go to: <https://getcrypto.info/binance>

This will forward you to the official Binance website.

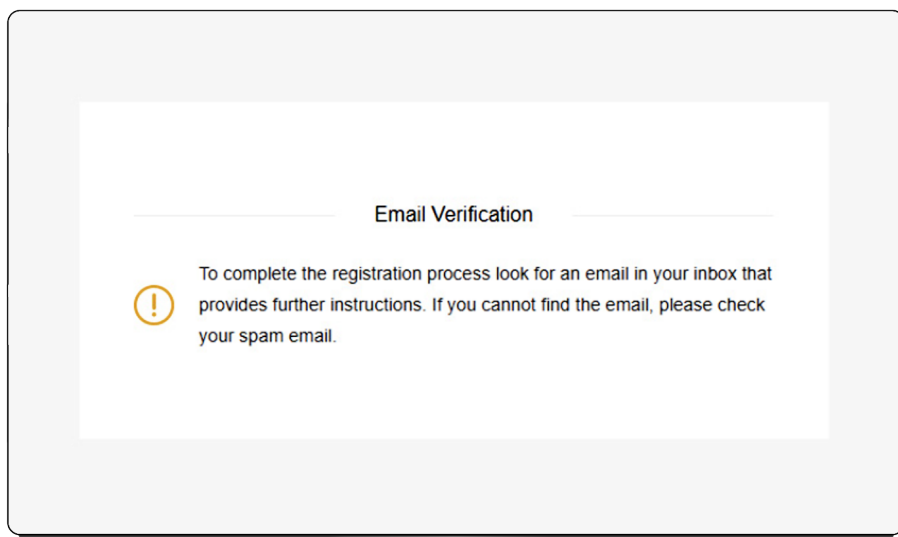
Note: So you get into the habit, make sure you double check the URL in your browser to be sure you're on the genuine site.

Click 'Register' on the top right menu.

A screenshot of a web browser displaying the Binance registration page. The page has a light gray background with a white central content area. At the top, the word "Register" is centered. Below it are four input fields: "Email" with an envelope icon, "Password" with a lock icon, "Confirm Password" with a lock icon, and a field containing the number "10878288" with a person icon. Below these fields is a checkbox labeled "I agree to Binance's Terms of Use". At the bottom of the form is a dark gray button labeled "Register". Below the button, the text "Already Registered? Log In" is displayed, with "Log In" in orange.

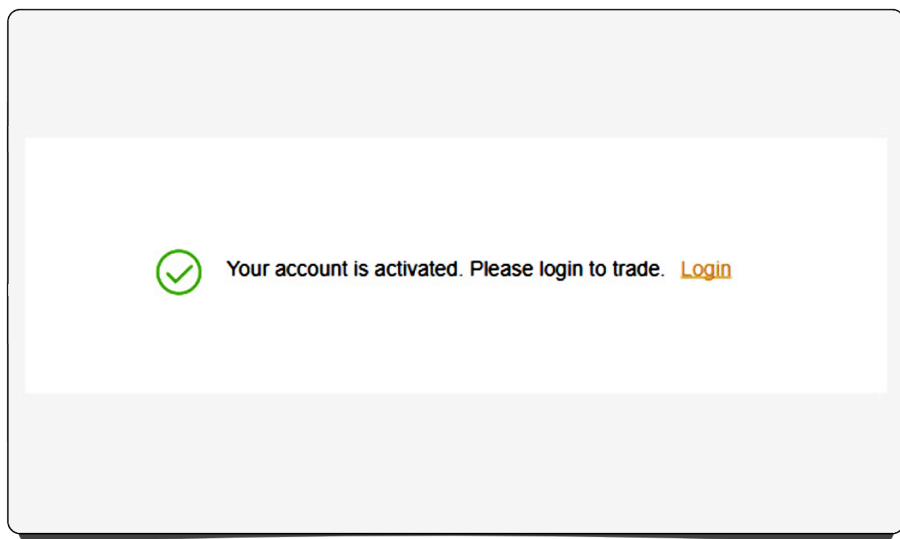
- Enter your email and a strong password (that you won't forget!).

Click 'Register.'

A screenshot of a web browser displaying the Binance email verification page. The page has a light gray background with a white central content area. At the top, the words "Email Verification" are centered. Below this is a yellow circular icon with a black exclamation mark. To the right of the icon, the text reads: "To complete the registration process look for an email in your inbox that provides further instructions. If you cannot find the email, please check your spam email."

- You will be sent an email to confirm your email address.

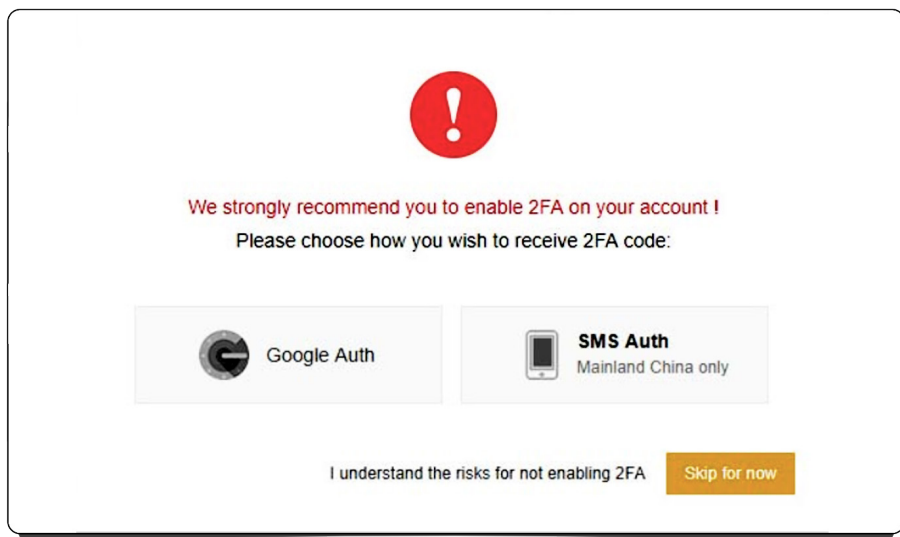
Click the link in the email.



- You will be taken back to Binance as your email is confirmed.

Press 'Login.'

On the login form, enter the email and password you just used to sign up, then press 'Login.'



- A pop-up will advise you to set up 2FA (two-factor authentication) on your account.

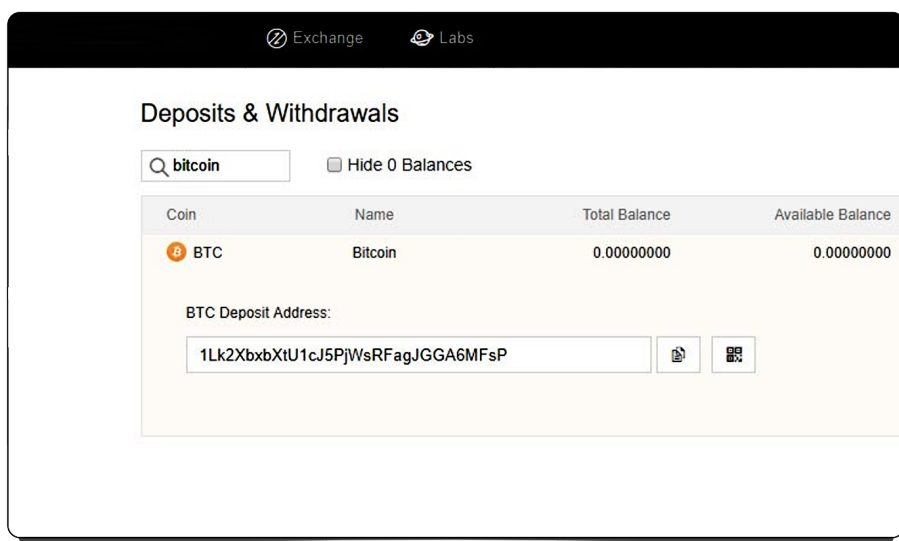
I strongly advise you to do this. In the event hackers manage to reset or steal your password, this second level of security makes it very unlikely they will be able to get into your Binance account.

I recommend using the Authy app, setting it up just as you did for Coinbase earlier.

- In Binance, hover your mouse over ‘FUNDS’ on the top menu and click on ‘Deposits Withdrawals.’

This screen displays any coins you have stored on Binance, which is obviously none at the moment.

Note: From this point on, I’ll assume you bought Bitcoin at Coinbase, and that’s what we’ll use in this example. If you bought Ethereum, your experience is almost identical, just substitute Ethereum/ETH for Bitcoin/BTC.

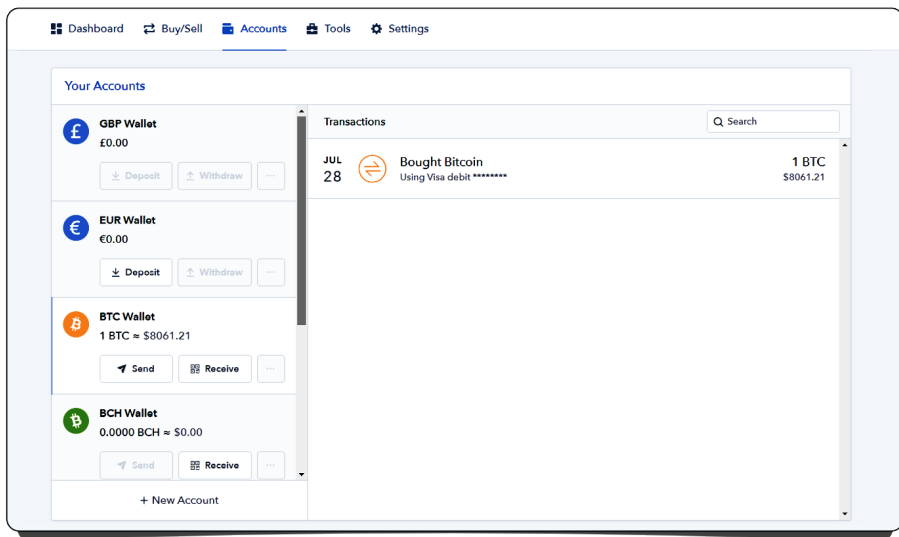


- Type ‘Bitcoin’ into the search box.

This will narrow the wallets displayed to just a few. In those, find BTC Bitcoin.

Press ‘Deposit.’

You will be given a Bitcoin deposit address (a long string of numbers and letters). Copy this address, since you’re going to need it soon.

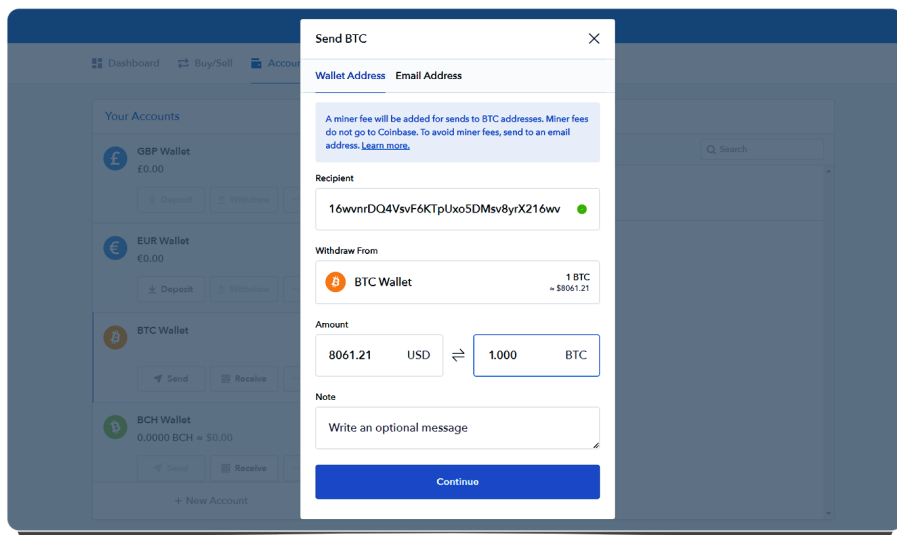


■ I'll assume your Bitcoin are still on Coinbase, so go back to that site and sign in.

Note: If you've already moved your Bitcoin to a wallet, you can use the instructions at the end of chapter 6 to send your coins (chapter 7 for Ethereum).

On Coinbase, click 'Accounts' from the top menu, then find your Bitcoin wallet listed on the left.

Click 'Send'.



■ In the ‘Recipient’ box, paste the Bitcoin wallet address you just copied from Binance.

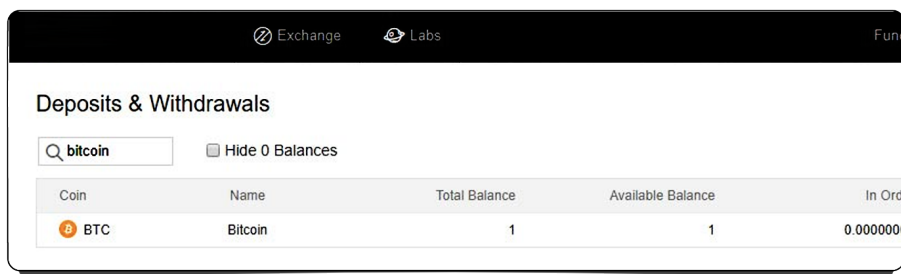
In ‘Amount,’ type how much Bitcoin you wish to send (there is a ‘use max’ option if you wish to send it all).

Click ‘Continue.’

Coinbase may ask you to confirm with your password, phone or Authy app. Follow the instructions until it confirms the Bitcoin are sent.

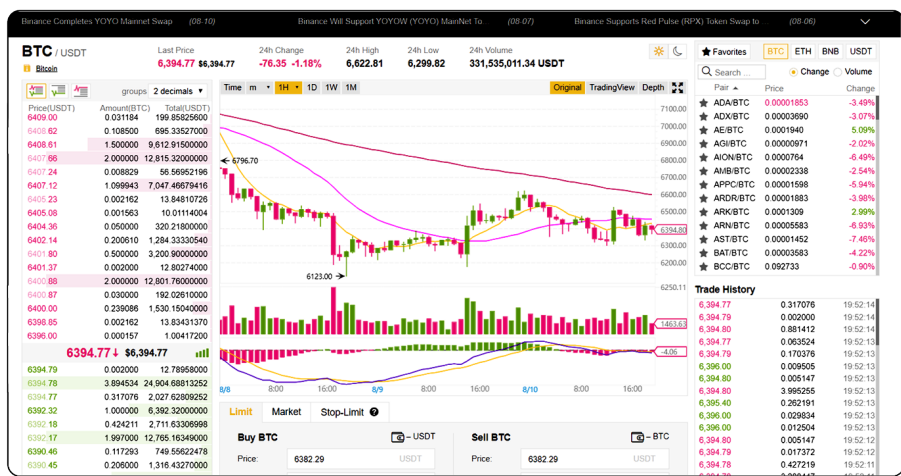
Under the ‘Funds’ menu in Binance, select ‘Balances.’

Unless there’s an unusually large Bitcoin network backlog, the coins will take between 20 and 60 minutes to appear in your Binance Bitcoin wallet.



- Once the Bitcoin show in your ‘available balance,’ you’re ready to trade for your chosen altcoin.

On Binance, in the ‘Exchange’ menu options, click ‘Basic.’



- On the right-hand column, in the box marked ‘Search,’ type the unique trading abbreviation of your desired coin. For example, Chainlink’s is ‘LINK’.

You can find the unique trading abbreviation of any coin by searching for it on [CoinMarketCap.com](https://www.coinmarketcap.com).

Once you’ve typed the abbreviation into the search box, the options below should have narrowed to just one—click it. This will load the trading page of your chosen coin.

Before we go any further, let's break down each part of the Binance trading page so you understand what's going on.

LINK / BTC	Last Price	24h Change	24h High	24h Low	24h Volume
 ChainLink	0.00004403 \$0.281121	-0.00000012 -0.27%	0.00004720	0.00004366	292.44 BTC

■ The top bar displays the unique trading abbreviation of the coin, and what it's being traded for. In this instance, Chainlink (LINK) is being traded for Bitcoin (BTC).

Last Price: the amount, in Bitcoin and in US dollars, that was last paid for a LINK token.

24h Change: the amount the price has changed in the past 24 hours, in Bitcoin and percentage.

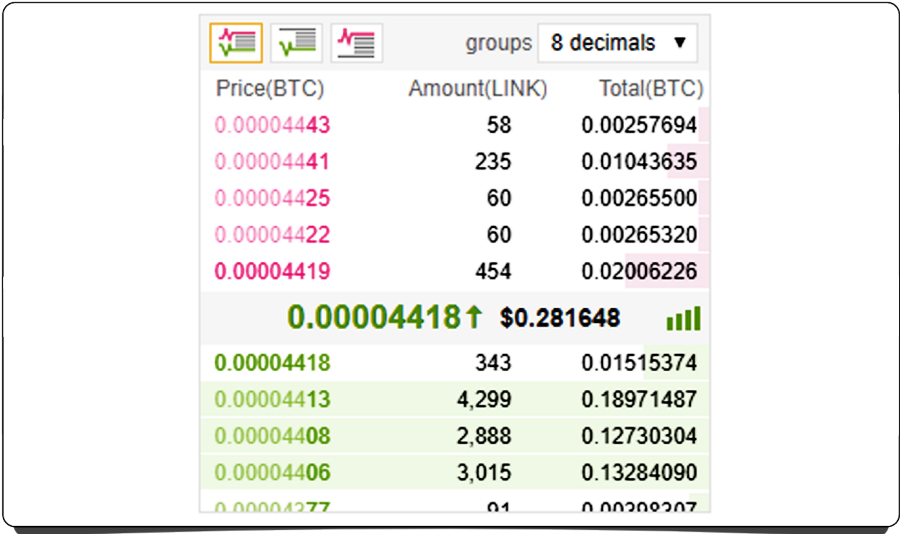
24h High: the highest price that has been paid for a LINK token over the past 24 hours, priced in Bitcoin.

24h Low: the lowest price that has been paid for a LINK token over the past 24 hours, priced in Bitcoin.

24h Volume: the total trading volume of LINK tokens over the past 24 hours on Binance, priced in Bitcoin.

So for example, if Bitcoin was \$6,000 and volume was 292.44:

$292.44 \times \$6,000 = \$1,754,640$ of trading volume over the past 24 hours.



■ This display lets you see the active buy and sell orders other traders have placed for this coin.

Price (BTC): the purchase or sell price of each order, priced in Bitcoin.

Amount (LINK): the number of coins, in this instance Chainlink coins, the order wants to buy or sell.

Total (BTC): the total value of the order, priced in Bitcoin.

The red orders are sells, and the green orders are buys.

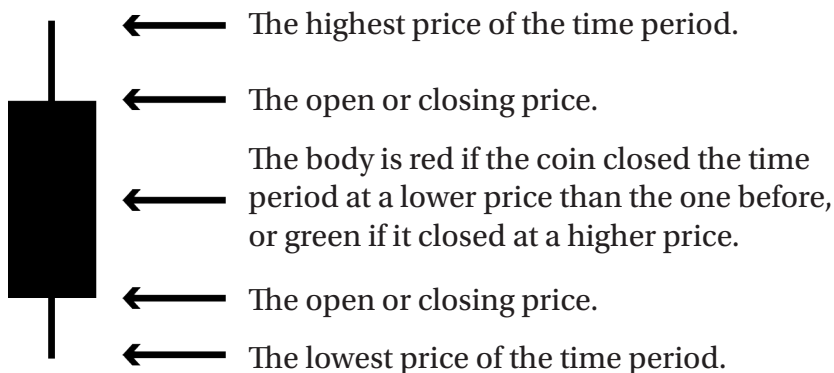
The information bar that divides the buy and sell orders tells us the price of the last order filled, while the up arrow lets us know that the coin price went up as a result of the order being filled.



- The center chart lets you see quickly and easily what the price and volume of a coin have been doing over a set amount of time.

The ‘Time’ options at the top of the chart can be used to view trading information on different timescales, from 1 minute to 1 month.

The timescale shown in the image above is for 15 minutes, so each bar represents 15 minutes of trading in the coin, and each bar visualizes the following information:



The bars directly beneath the chart show us the volume of coins bought and sold during each time period.

Hovering your mouse over each bar brings up a number beside the word 'VOL' that tells you the exact number of coins that changed hands.

Trade History		
0.00004301	138	17:07:42
0.00004300	468	17:07:36
0.00004298	90	17:07:36
0.00004290	641	17:07:35
0.00004300	1,360	17:07:30
0.00004299	236	17:07:30
0.00004300	240	17:07:28
0.00004299	26	17:07:28

- The Trade History lets us see trades that have recently taken place, showing both the price paid in Bitcoin and the number of coins bought or sold.

Green orders are buys and red orders are sells.

■ Placing a buy order

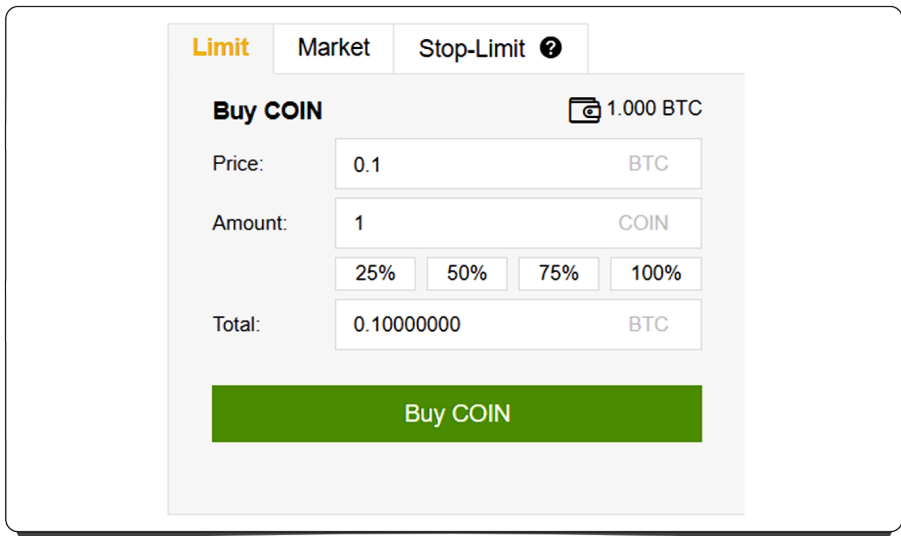
Now we'll go over the two main ways you can place a buy order for a coin:

■ A limit order

A 'limit' order lets you manually set the price at which you want to buy coins.

■ A market buy

A 'market' buy fills your order automatically at the best price available.



The image shows a digital interface for buying a cryptocurrency. At the top, there are three tabs: 'Limit' (highlighted in orange), 'Market', and 'Stop-Limit' (with a question mark icon). Below the tabs, the title 'Buy COIN' is displayed next to a Bitcoin icon and the text '1.000 BTC'. The form contains three main input fields: 'Price:' with the value '0.1' and unit 'BTC', 'Amount:' with the value '1' and unit 'COIN', and 'Total:' with the value '0.10000000' and unit 'BTC'. Below the 'Amount:' field, there are four buttons labeled '25%', '50%', '75%', and '100%'. At the bottom of the form is a large green button labeled 'Buy COIN'.

■ Placing a limit order

When you place a limit order, you have to enter the price you wish to pay for each altcoin, priced in Bitcoin, and the number of altcoins you wish to buy.

In the input box marked 'Amount', you fill in how many coins you'd like to buy. It can be easier to use the percentage buttons below the

input box. For example, press 50% if you'd like to exchange 50% of your Bitcoin for your chosen altcoin.

In the example image, the order is for one coin, at the price of 0.1 Bitcoin per coin. If you click on the 'Price' box, it will inform you what the entered Bitcoin amount is worth in US dollars.

The total cost of the order in Bitcoin will be calculated and will appear in the 'Total' box.

If you then press the 'Buy' button, the order will be created.

Once created, the order will sit on the order book, and if coins become available at the price you wrote in the 'Price' box, your order will automatically buy them.

However, if the price of the coin rises, your order might not be filled. If that happens, and you still want to buy, you can choose to cancel the order (the option is listed under 'Open orders') and place a new one at a higher price.

Limit **Market** Stop-Limit ?

Buy LINK 1.000 BTC

Price: BTC

Amount: COIN

■ Placing a market buy

A market buy is the simpler option, and one where you're guaranteed to buy your coins immediately.

You can put the number of coins you want to buy in the 'Amount' input box (again, you can use the percentage button for easier buying), then simply click 'Buy'.

Your order will be automatically filled, first by buying the cheapest coins available for sale, and then the next cheapest, then the next, until your order has been completely filled.

If you're placing a large order, this might mean you will be buying coins that are significantly over the current asking price. It's a good idea to check the order book to see how many coins are available for sale at a reasonable price before placing a large market order.

■ Storing your new coins

If you're comfortable with the risk, you can leave your coins on the exchange you bought them on.

However, before you get comfortable with that idea, you should ask yourself, what if the exchange gets hacked or goes out of business? You might lose your coins.

So it's best practice to hold your coins in a wallet that only you control, just as was shown earlier for Bitcoin and Ethereum.

If the altcoin you've bought exists as a token on a blockchain, then it can be stored in a wallet for that blockchain. For example, Chainlink exists as a token on the Ethereum blockchain, so you can store it in an Ethereum wallet, just like the one set up in chapter 7.

If the altcoin exists on its own blockchain, then you're going to need a unique wallet for it. For instance, coins such as Ripple, Monero and Neo all exist on separate blockchains, so they all need separate wallets to store them.

The easiest way to find a good wallet for your chosen coin is to find the coin on CoinMarketCap.com and then use the 'Website' link to go to the official site of the coin so you can see what the coin developers suggest as a wallet option.

If that gives unsatisfactory results, visit the Reddit community of the coin and see what those with first-hand experience recommend.

Note: When you're looking for a wallet for your chosen coin, remember what we talked about earlier: research, research, research.

Don't download the first wallet you see without checking that it's trustworthy and stable!

If you send your coins to a corrupt or buggy wallet you could lose them, and there's usually no way to get them back.

■ Withdrawing coins from an exchange


Once you've set up a wallet for your coin and you've got your personal wallet address, you're ready to withdraw your coins from the exchange.

Note: I'm going to be using Binance and the Ethereum wallet that was set up in chapter 7 for this example withdrawal.

And one more note: Binance charges a withdrawal fee, listed as a transaction fee, every time you take coins off the exchange.

In Binance, in the Funds menu, click 'Withdrawal'.

In the input box labeled 'Select coin/token to withdraw', type the name of the coin you're withdrawing and then click it from the list presented.


CX - COIN

Total balance


1.000 COIN

In order

1.000 COIN

Available balance

1.000 COIN


What's COIN?

Important

- Minimum withdrawal: 10 COIN
- Do not withdraw directly to a crowdfund or ICO address, as your account will not be credited with tokens from such sales.

COIN Withdrawal Address

Amount

24h Withdrawal Limit: 0 / 100 BTC

Available: 1.000

COIN

Transaction Fee: 0.00000000

You Will Get: 0.00000000

Submit

Please note

- Once you have submitted your withdrawal request, we will send a confirmation email. Please then click on the confirmation link in your email.
- After making a withdrawal, you can track its progress on the [history](#) page.

■ Read all the information presented to you about your coin—it may be important.

Once you're ready, enter your personal wallet address into the 'Withdrawal Address' box.

Now type the number of coins you want to withdraw in the box labeled 'Amount'.

Note: It's smart to do a small test transaction of just a few coins when using a new wallet so you can be sure everything is working correctly before moving the bulk of your coins.

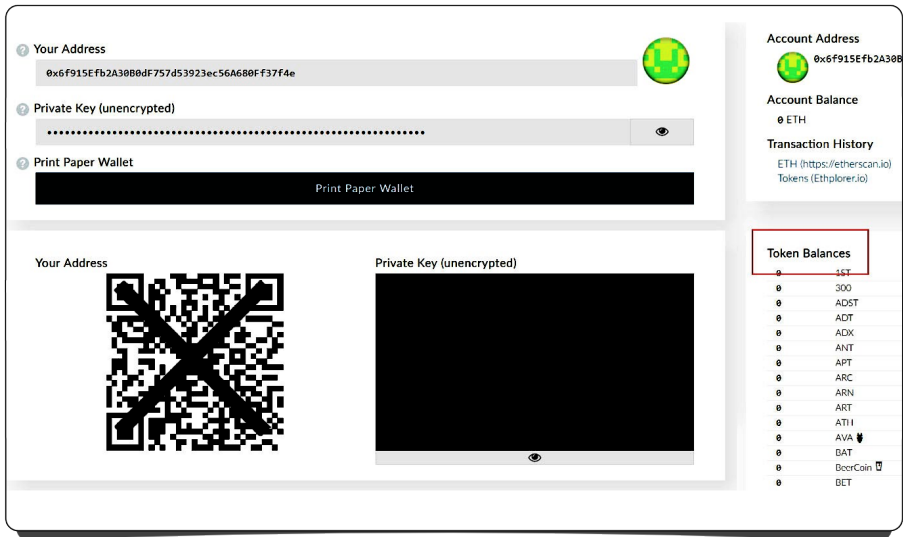
Once you're sure all your withdrawal information is correct

(double check everything!), press ‘Submit’

If you’ve set up two-factor authentication, you will be asked for a code from your Authy app. Enter it and press ‘Submit’

You will be sent an email to confirm the withdrawal.

Go to your email and click the link that has been sent to you.



■ In this example, we’re moving Ethereum tokens, so in MyEtherWallet the coins would soon appear under ‘Token Balances,’ listed under their trading abbreviation.

Once you’re sure the coins or tokens are showing correctly in your chosen wallet, you can return to Binance and move the rest of your coins using the same process.

Note: Make sure your means of access to your wallet is backed up somewhere private and safe.

Don’t regret losing your investment because you were too preoccupied to spend a few minutes backing everything up.

Monitoring your investment.

How to keep tabs on the development and price of a coin.

Now that you own cryptocurrency, I'd expect that you'd want to stay up to date on developments in your chosen coins, as well as their price movements.

There are a bunch of ways to stay informed about events concerning your coins:

- Go the official site of the coin and subscribe to its newsletter.
- Follow the development team of the coin, and most vocal fan groups, on Twitter, Facebook and Instagram.
- Subscribe to the Reddit community of the coin.
- If the coin has an official Telegram or Slack account, sign up and join the conversations.
- If the coin has an active GitHub account, consider bookmarking it and checking periodically to keep an eye on how work is

progressing on the project's code.

- Sign up to a general crypto news Reddit community, such as <https://www.reddit.com/r/CryptoCurrency>

- Visit crypto news sites such as:

- <https://www.coindesk.com>

- <https://www.ccn.com>

- <https://www.investing.com/crypto>

... but remember they may have their own agendas in how and what they report.

■ Monitoring the price of a coin

It doesn't make sense to keep opening your wallet to check the current value of your coins, as it's time consuming and a security risk. You should be accessing your wallet only when you're sending coins.

You can visit a website such as CoinMarketCap.com to check the price of a coin and the whole market, or visit an exchange such as Binance to see in real-time what the coin is trading for.

You can also use an app on your phone, such as:

- CoinCap

- BitWorth

- Delta Portfolio Tracker

Using these, you can input the number of coins you have and track their price changes over a time period—a quick and easy way to check the price of your portfolio with one tap.

Selling your coins.

Trading to other coins
or cashing out.

Note: There are potential tax implications when it comes to selling cryptocurrencies. See chapter 13.

Naturally a time may come when you're ready to exchange some of your altcoins for other altcoins, or you may even want to sell some of your crypto back to **fiat money**.

■ Trading one altcoin for another altcoin

Fiat money | Legal tender issued by a government, for example dollars, pounds or euros, etc.

At this time most altcoins can't be traded for one another directly—they must be traded for either Bitcoin or Ethereum, and from there traded to whichever new coin you wish to purchase.

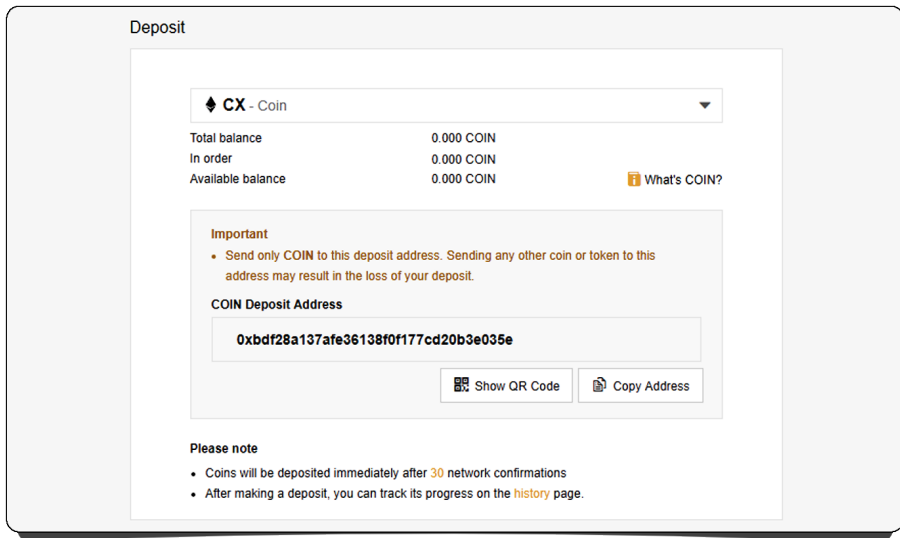
To send your altcoin back to an exchange, you need to get a wallet address to send it to.

The following example shows you how to do that using Binance, and the process is very similar on other exchanges.

■ Depositing coins to Binance

On Binance, under the ‘Funds’ menu, click ‘Deposits.’

In the input box for ‘Select coin/token to deposit,’ type the name of the coin you’re going to send to Binance. In the list that appears, click the coin.



The screenshot shows the 'Deposit' page for 'CX - Coin' on the Binance platform. At the top, there's a dropdown menu showing 'CX - Coin'. Below it, a table displays the account balance: 'Total balance' is 0.000 COIN, 'In order' is 0.000 COIN, and 'Available balance' is 0.000 COIN. To the right of the table is a link 'What's COIN?'. Below the table, an 'Important' section contains a warning: 'Send only COIN to this deposit address. Sending any other coin or token to this address may result in the loss of your deposit.' Underneath, the 'COIN Deposit Address' is shown as '0xbdf28a137afe36138f0f177cd20b3e035e'. There are two buttons: 'Show QR Code' and 'Copy Address'. At the bottom, a 'Please note' section contains two bullet points: 'Coins will be deposited immediately after 30 network confirmations' and 'After making a deposit, you can track its progress on the [history](#) page.'

■ This will load the deposit instructions for this coin. ***Read the warnings:*** be sure you don’t need to follow any special steps to deposit your coins. Some coins, often privacy oriented ones, require you to attach extra information to a transaction to make sure it arrives correctly.

Once you’re sure your deposit is good to go, copy the deposit address given to you by Binance.

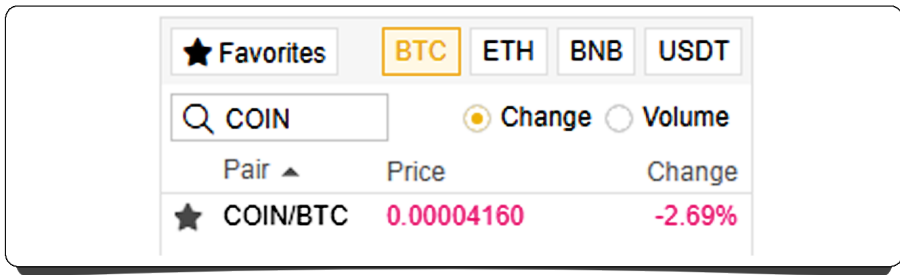
Return to whichever personal wallet you’re using to store your coins and use the ‘Send’ option. Use the wallet address you just copied from Binance as the recipient address, and input how many coins you want to send.

At the risk of repeating myself, it's not a bad idea to do a small test transaction to be sure everything is working smoothly before you send any large amounts.

As soon as Binance registers your deposit, the transaction will appear in the right-hand column labeled 'History'. Be patient, as it takes multiple confirmations on a blockchain for Binance to confirm that your deposit was successful.

Once the coins appear on your 'Balance' screen, they're available for trade.

Hover over 'Exchange' and click 'Basic'.

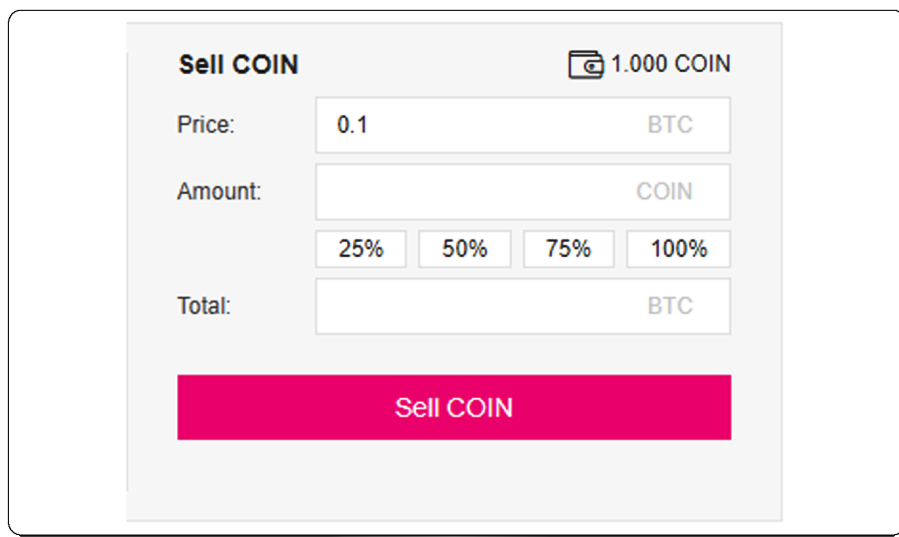


■ Depending on whether you're selling your coins for Bitcoin or Ethereum, click either the BTC or the ETH box.

In the 'Search' input box, type your trading abbreviation of the coin and then select it from the list.

This will take you to the trading screen for your coin.

But instead of using the Limit/Market *buy* options, you're going to use the Limit/Market *sell* options.

A screenshot of a 'Sell COIN' interface. At the top left is the title 'Sell COIN'. At the top right is a balance indicator showing a coin icon followed by '1.000 COIN'. Below the title, there are three main input sections. The first is 'Price:' with a text box containing '0.1' and a dropdown menu set to 'BTC'. The second is 'Amount:' with a text box and a dropdown menu set to 'COIN'. Below the 'Amount:' dropdown are four percentage buttons: '25%', '50%', '75%', and '100%'. The third section is 'Total:' with a text box and a dropdown menu set to 'BTC'. At the bottom of the form is a large red button with the text 'Sell COIN' in white.

Sell COIN 1.000 COIN

Price: 0.1 BTC

Amount: COIN

25% 50% 75% 100%

Total: BTC

Sell COIN

These options work exactly the same as the buy option, except of course you're now selling your coins for Bitcoin or Ethereum.

■ Selling using a limit order

If using a limit order, you can state the price you want to sell your coins at in Bitcoin or Ethereum, and how many coins you want to sell.

The order will sit on the order book until someone buys it. If the price of the coin goes down, your coins might not sell—and you may have to cancel your order and place it again at a lower price.

■ Selling using a market order

If using a market order, you enter the number of coins you want to sell and as soon as the order is placed it will be filled.

Your coins will be sold to the highest buy order, then the next highest, then the next, until it's completely sold. Note that this may mean you get a lower overall price for your coins than you would using a limit order.

■ Trading an altcoin for fiat currency

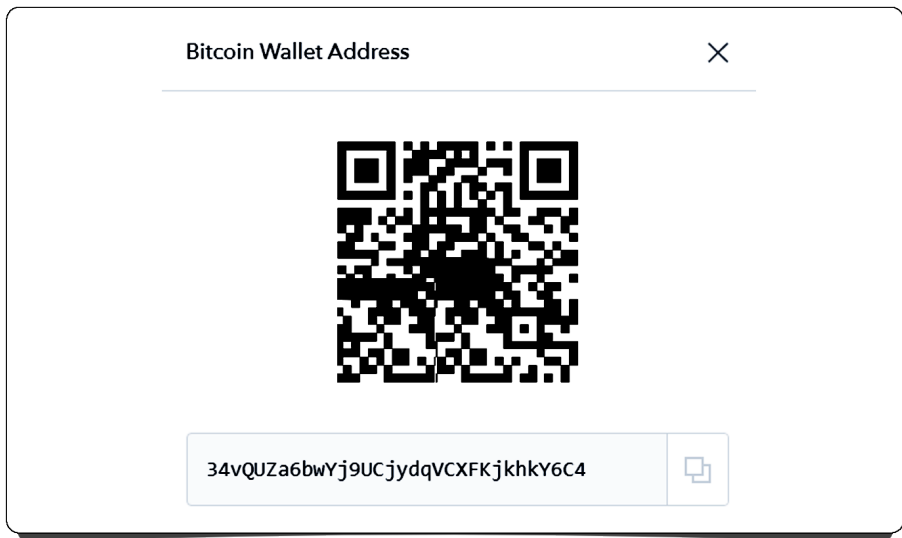
At some point you might want to cash out some of your crypto.

Some exchanges do allow you to sell *some* altcoins for fiat currency without converting it to Bitcoin or Ethereum first.

For example, Coinbase currently allows you to buy and sell the altcoins Bitcoin Cash, Litecoin and Ethereum Classic for fiat currency without having to exchange them for Bitcoin or Ethereum first.

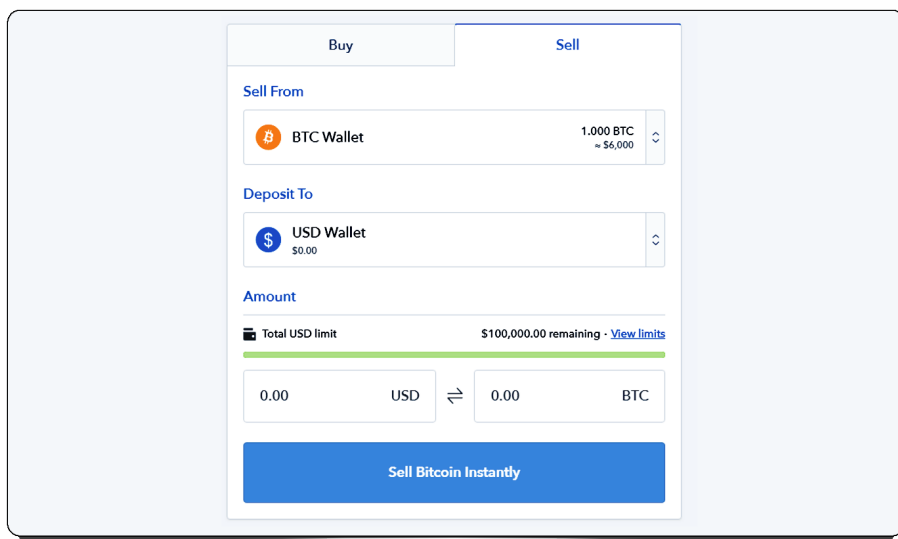
However, most altcoins are not yet available to trade straight to fiat currency. If that's the case for yours, you'll want to follow the previous guide for selling an altcoin to Bitcoin or Ethereum, and then send that Bitcoin or Ethereum to your chosen 'crypto to fiat' exchange, where you can then sell it for fiat currency.

As I've used Coinbase so far in the examples, I'll do the same now.



■ In Coinbase, click 'Accounts'. On either your Bitcoin or your Ethereum wallet, click 'Receive'.

You will be presented with a wallet address which is where you send your Bitcoin or Ethereum to. You already know how to withdraw coins from an exchange from reading chapter 10.

The image shows a screenshot of the Coinbase 'Sell' interface. At the top, there are two tabs: 'Buy' and 'Sell', with 'Sell' being the active tab. Below the tabs, there are three main sections. The first section, 'Sell From', has a dropdown menu showing 'BTC Wallet' with a Bitcoin icon and a value of '1,000 BTC ≈ \$6,000'. The second section, 'Deposit To', has a dropdown menu showing 'USD Wallet' with a dollar sign icon and a value of '\$0.00'. The third section, 'Amount', shows a 'Total USD limit' of '\$100,000.00 remaining' with a link to 'View limits'. Below this, there are two input fields: the first shows '0.00' with 'USD' as the currency, and the second shows '0.00' with 'BTC' as the currency, separated by a double-headed arrow. At the bottom of the form is a large blue button labeled 'Sell Bitcoin Instantly'.

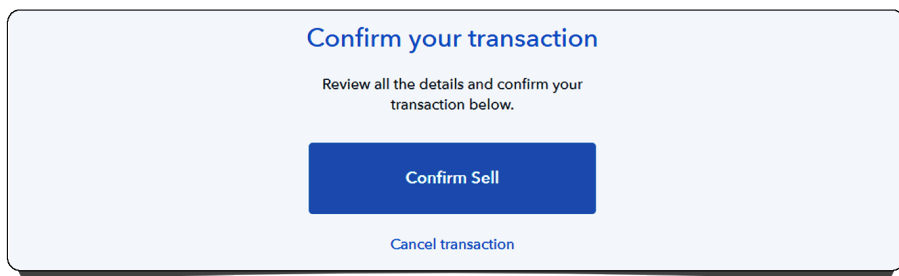
■ Once your coins have been deposited into your Coinbase wallet (this can take up to an hour), click 'Buy/Sell' along the top menu.

In the menu that appears, click 'Sell', then select your Bitcoin or Ethereum wallet from the drop-down menu.

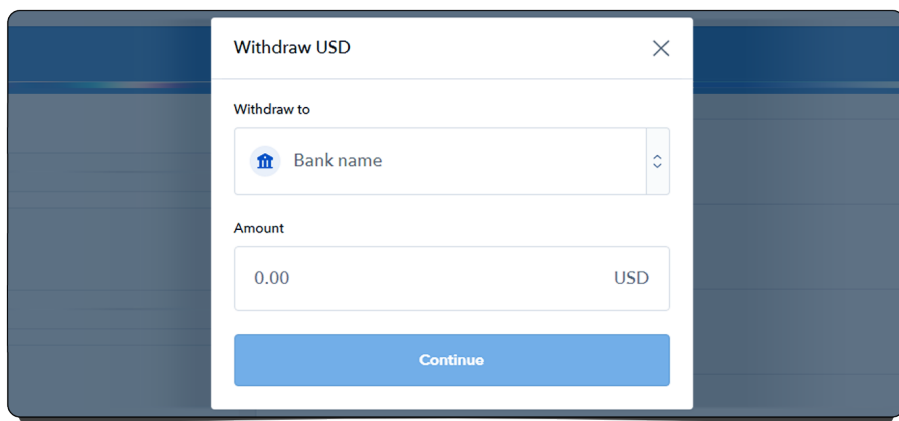
In the 'Deposit To' option box, you can select which fiat currency you want to sell your Bitcoin or Ethereum for.

On the right of the screen you'll be given a summary of your sell order: the price you're selling Bitcoin or Ethereum at, the amount you're selling, the Coinbase fee, etc.

Once you're happy with what you see there, press the 'Sell' button.



- You will be asked to confirm the sell order. Check it over once again to be sure it's correct, then click 'Confirm Sell'



- Now click 'Accounts' and find the correct currency wallet. Press 'Withdraw'.

Select which bank account you wish to withdraw to, then input how much currency you want to withdraw.

Once you're happy, click 'Continue'. You will be presented with a summary of your withdrawal, including any fees you may have to pay. If it all looks fine, click 'Confirm'.

The withdrawal will confirm and the funds will be sent to your bank account. How long it takes to receive them often depends on your bank's own procedures.

Tax implications.

A rough guide to how trading and selling cryptocurrencies is taxed.

Tax implications for trading and selling cryptocurrencies differ from country to country, and it's in your best interest to do thorough research before you trade or sell cryptocurrencies.

Different countries apply different rules to cryptocurrency. Some class it as property, some as an investment, some as a foreign currency. It's up to you to find out how your country classes it, and what that means in regards to what tax you need to pay on profits you make from exchanging and selling it.

This is some general advice about the tax implications of:

■ Trading one cryptocurrency for another

Even though exchanging one cryptocurrency for another—for example, exchanging Bitcoin to Chainlink— doesn't actually see any fiat money changing hands, it still counts as a 'taxable event.'

What this means is that if you made a 'profit' at the time of the exchange, you may be liable to pay tax on it.

An example:

- 1 Bitcoin is purchased for \$6,000.
- That Bitcoin is exchanged for 10,000 Chainlink tokens, valued at \$0.60 each in fiat currency.
- Chainlink's price goes up 10%. Each coin is now worth \$0.66, valuing the 10,000 Chainlink at \$6,600.
- The Chainlink tokens are then exchanged for 1.1 Bitcoin.

The above example sees the trader making 0.1 Bitcoin in profit, valued at \$600 in fiat at the time of the trade.

That exchange can be seen as a taxable event, and that \$600 is taxable profit, even if the Bitcoin is not sold for fiat currency. This is commonly known as a 'capital gain.'

What if I make a trade, make a taxable gain, but then the price of my new coin goes down and wipes out the gain?

Unfortunately you'll still have to pay the tax on the capital gain you made when the profitable transaction took place.

The future rise or fall of the coin price makes no difference on the tax owed on a past trade.

Of course, it can also work the other way. If you exchange coins and make a loss, you might be able to claim a capital gains loss on your tax return.

However, some countries allow you to only post a limited amount of capital losses each year, though you may be able to carry some losses forward into the next tax year.

■ Selling a cryptocurrency for fiat currency

When you sell a cryptocurrency for fiat currency, you are crystallizing either a gain or a loss, and again this typically falls under capital gains tax laws.

An example:

- 1 Bitcoin is bought for \$6,000.
- The Bitcoin price goes up by 10%. That 1 Bitcoin is now worth \$6,600.
- The Bitcoin is sold for \$6,600.
- A profit of \$600 is realized.

The \$600 profit in the above example would typically be taxed as a capital gain.

■ The state of cryptocurrency tax laws

Worldwide, tax authorities have been reluctant to give concrete advice on how cryptocurrencies are to be taxed. They're adopting a 'wait and see' approach to this new technology.

However, their obtuseness doesn't mean you can ignore your tax obligations.

Remember that most blockchains have public ledgers, so anyone can view transactions, and in the future it may become easy to trace transactions back to the original buyers and sellers.

With so much money sloshing around cryptocurrency markets, you can bet that tax authorities are working out how they can get their slice of the pie, and you don't want the tax-man knocking on your door a few years from now asking why you haven't paid.

Following is some simple advice on keeping your crypto tax affairs straight.

■ **Get an accountant**

It's not the easiest thing to find accountants who are well-versed in the current state of cryptocurrency tax laws, but they are out there, and well worth finding if you want to be confident you're staying on the right side of your tax implications.

■ **Record your trades**

It's essential to keep records of your cryptocurrency buys, sells and trading transactions.

Most exchanges, including Coinbase and Binance, offer the ability to download your trading activity, so you can see all of your buys and sells in one document.

These can then be passed to your accountant, and he can do the brain-teasing work of calculating the tax owed.